THE ARCHITECT & BUILDING NEWS

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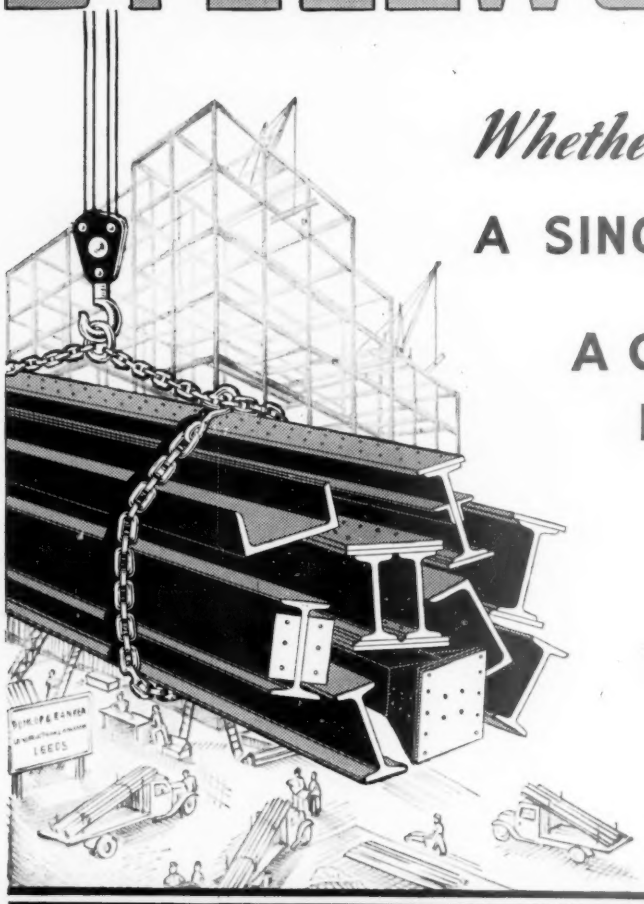
MAY 11, 1951 · VOL. 199 · NO. 4299 · ONE SHILLING WEEKLY

STEELWORK



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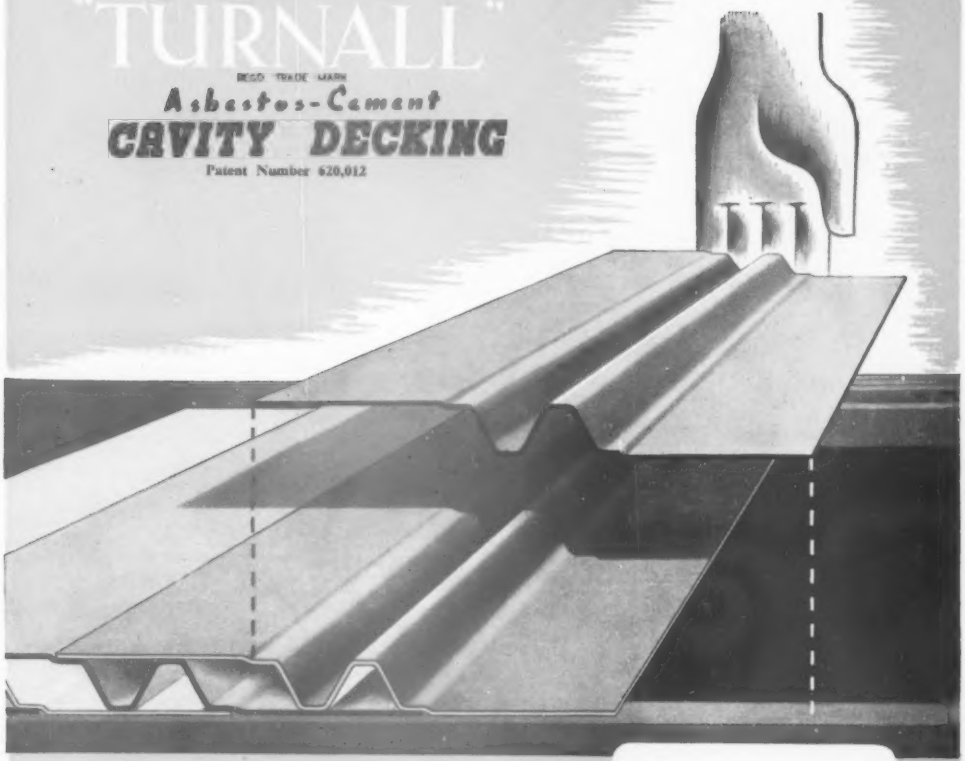

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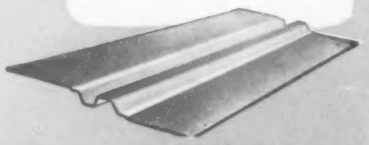

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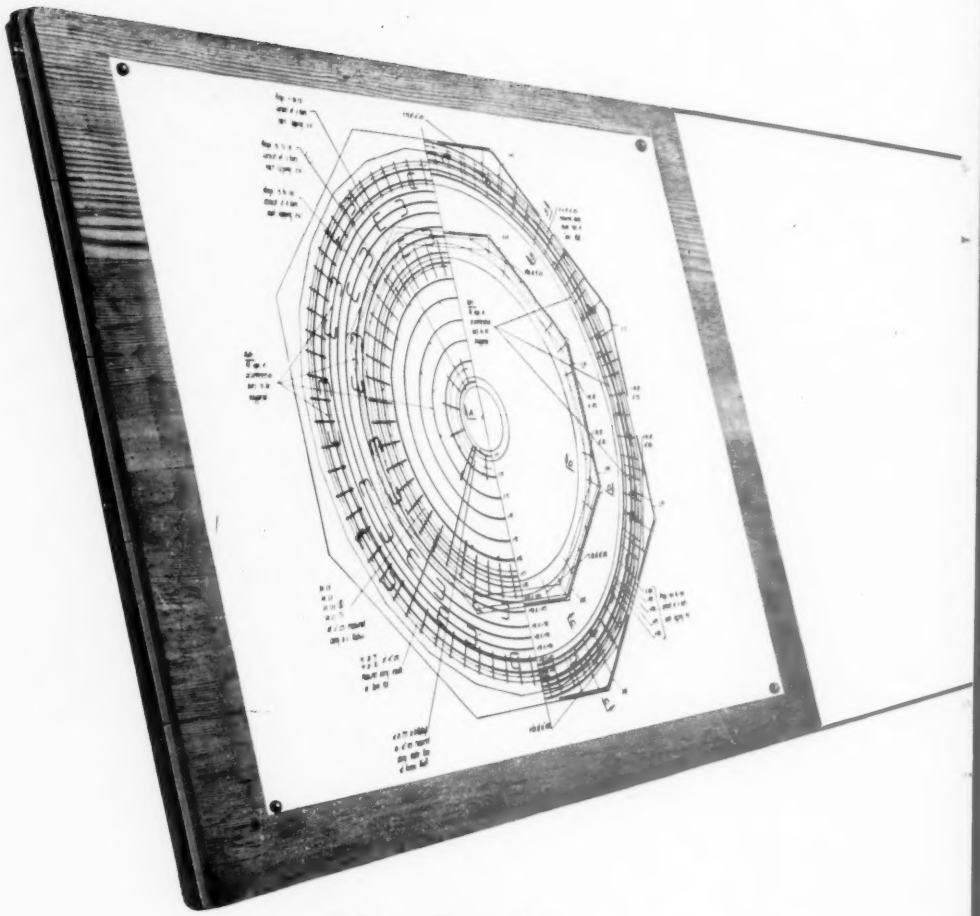

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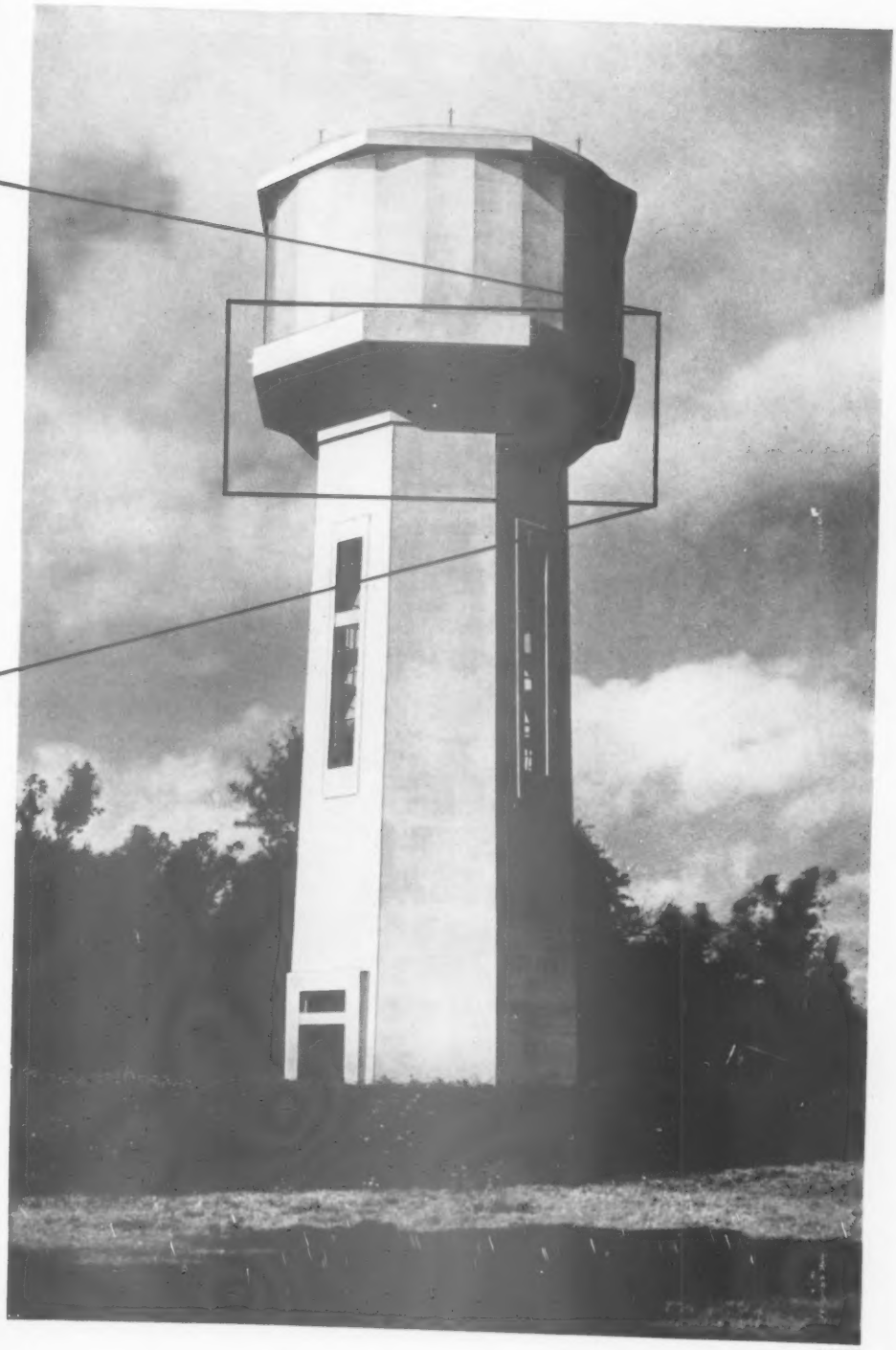

M-W.503

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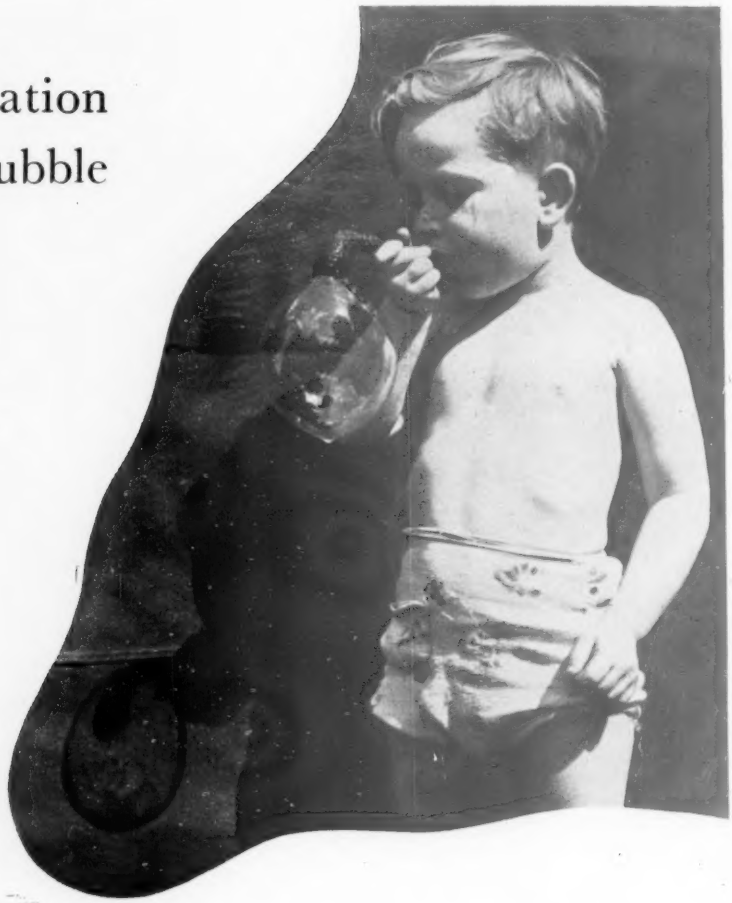

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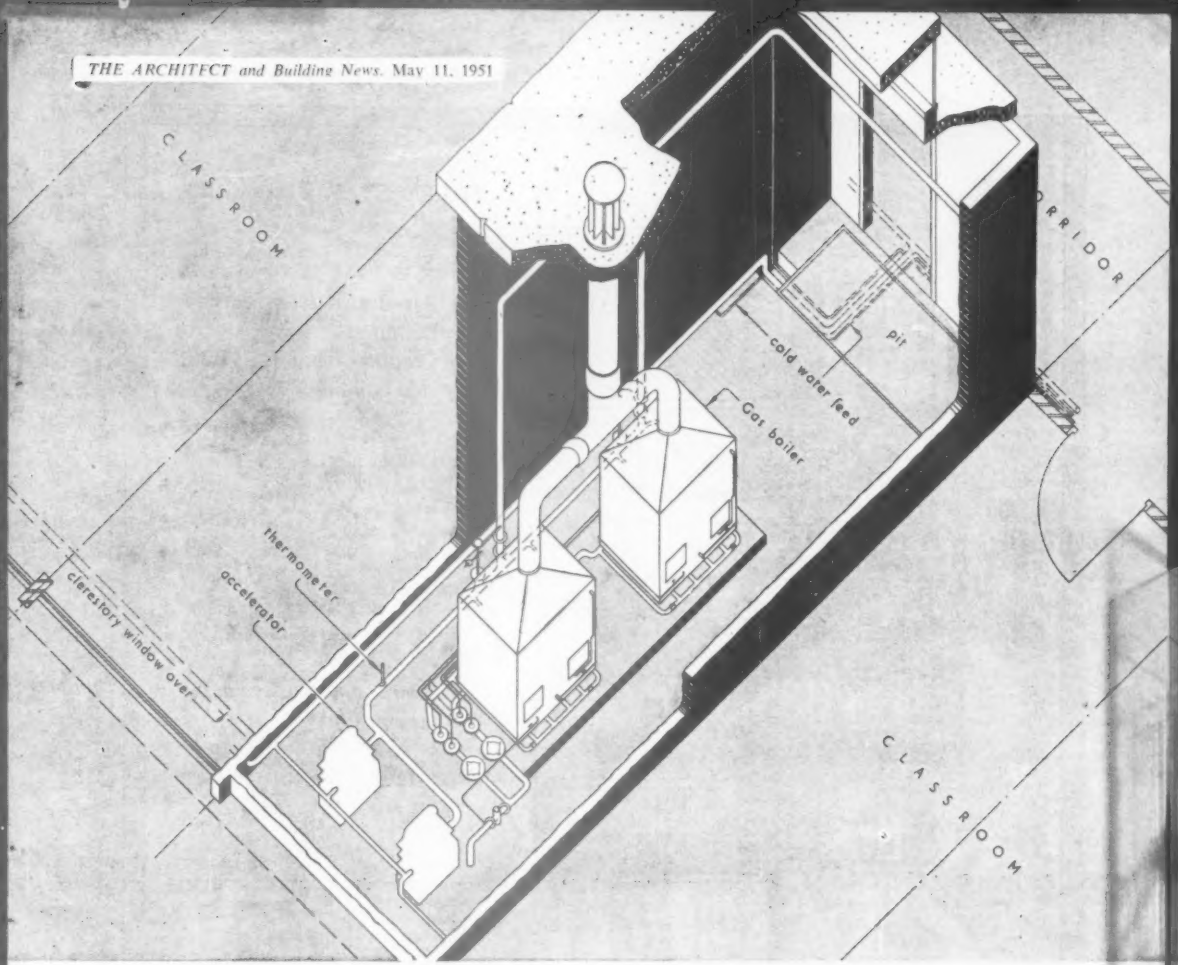

Boiler house for New Classroom Block, Twickenham Technical College. County Architect : C. G. Stillman, F.R.I.B.A.

GAS solved this school heating problem

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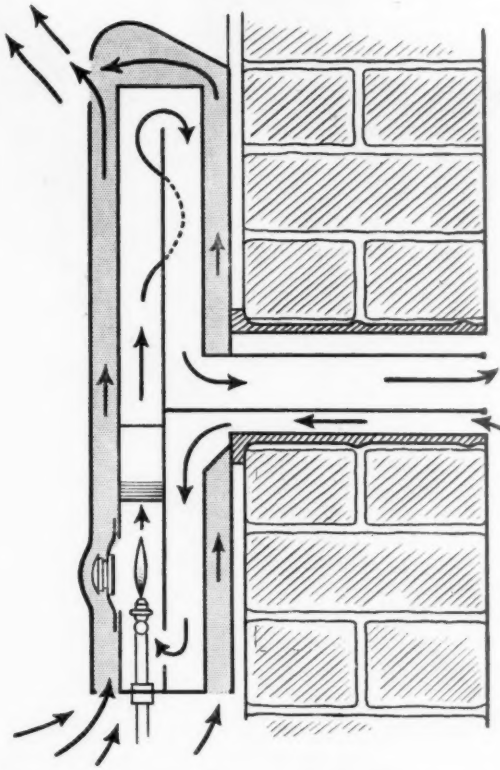

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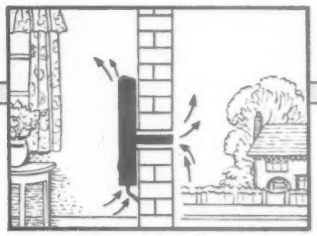

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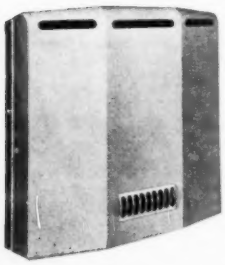

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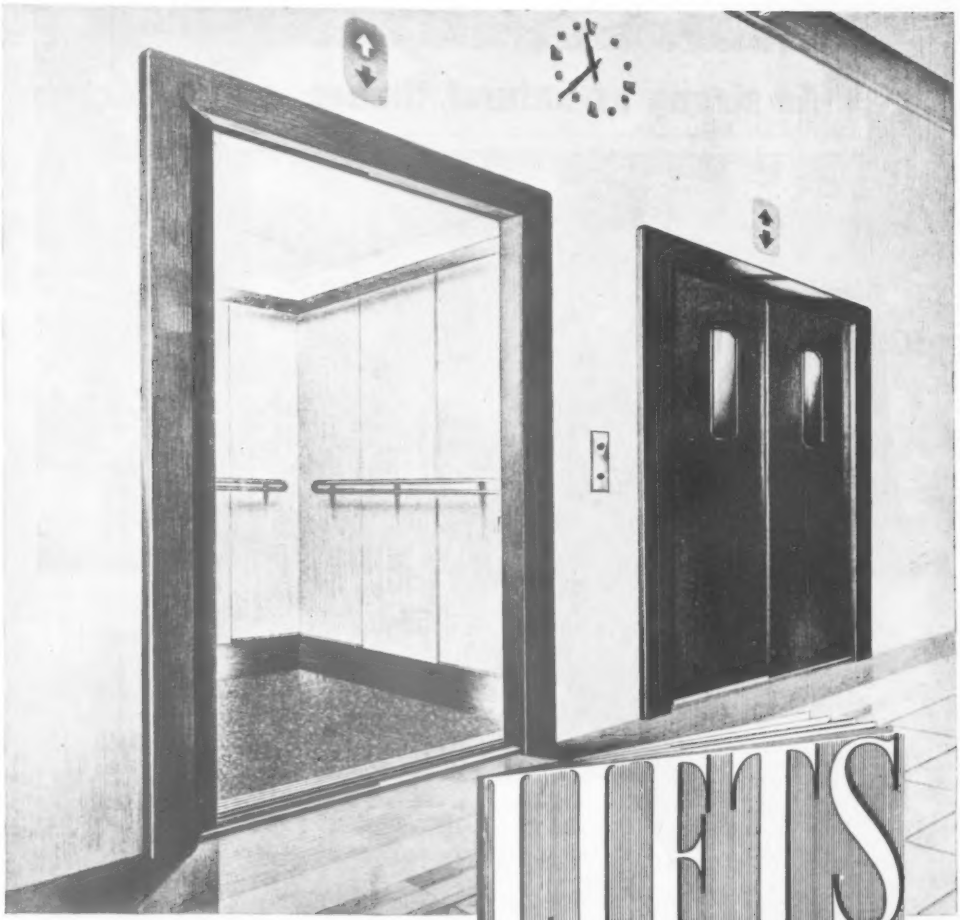

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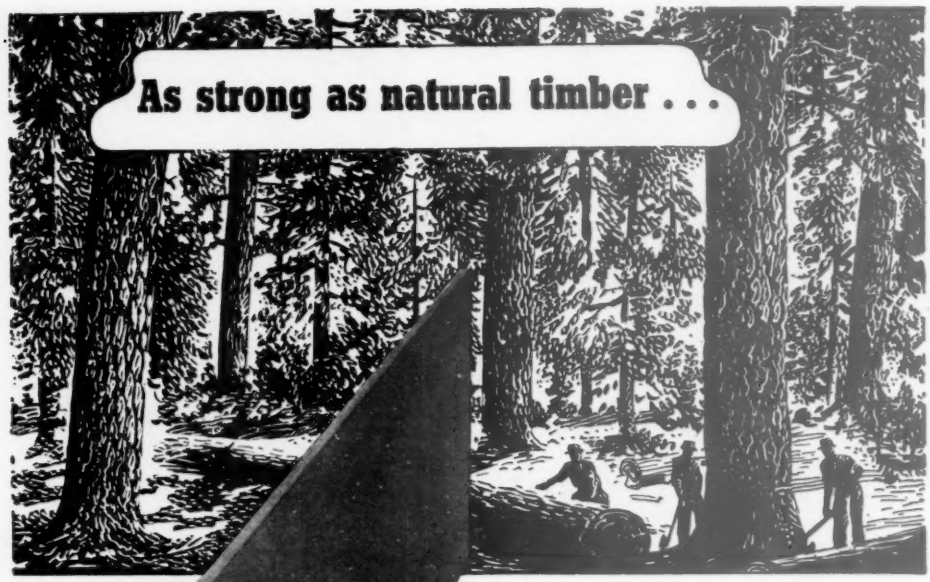

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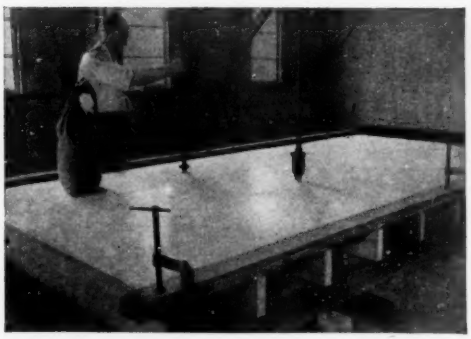

Fig. 1. - Rig and Gear for applying impact tests.

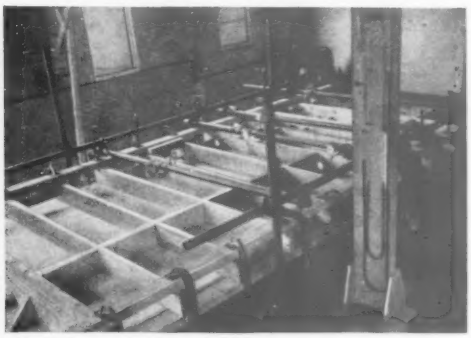

Fig. 2. - Rig for static loading tests. (Floor section is inverted, with captive airbag beneath for loading.)

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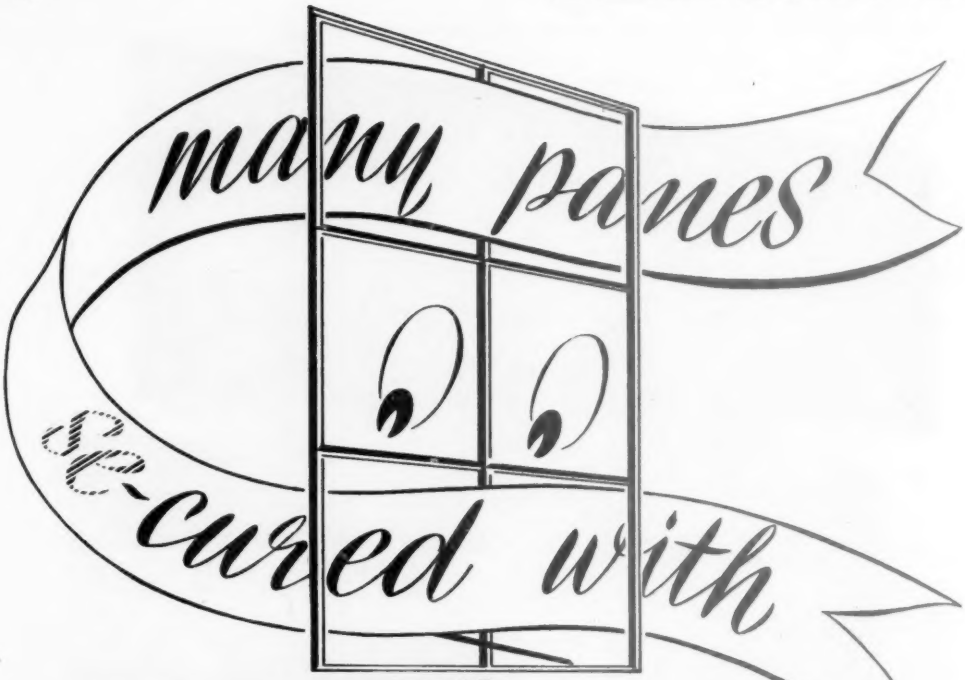

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THE ARCHITECT & BUILDING NEWS

May 11, 1951.

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HIGH BUILDING COSTS AND WASTES

SOMEHOW or other an investigation into a national problem in this country sticks at the report stage. After this important point has been reached processes of infiltration and percolation begin their slow way towards wearing-down or building-up the persons and bodies concerned with the report's findings. It takes time and unless there is an accompanying process of "putting the findings across", the time may be extended *ad infinitum* or alternatively the report may be pigeon-holed to await the next relevant committee of inquiry or investigation.

There are many who feel that this is what is happening now to certain reports, which refer vitally to the work of the largest industry in this country, by a Working Party, by a Productivity Team and by Government Committees which study Distribution of Materials, Housing Costs and Restrictive Practices. There are also studies and reports which, instigated by the B.S.I., the R.I.B.A., the Housing Centre and others, seem to get but little further towards persuading the building industry to consider ways and means immediately to organise for the reduction of waste in building and for an all-round lowering of costs. At no time has the whole subject been more urgent than at the present; the country is in a period of post-war reconstruction and the Government has before it a programme of considerable expansion of services and rearmament.

The United States of America is faced with similar problems, though in larger and even more intensified forms; but, somehow, in that country there is a certain will or drive to follow things up more quickly or—being faced with emergency—to get things done, if only temporarily. A recent Round-Table Conference, for example, was sponsored by the *Architectural Forum-Magazine of Building*, at which architects, builders, engineers, manufacturers, the Government and the Standards Association sent representatives. From their report we can summarise a few of the findings, which, to say the least, are alive with suggestions.

This conference was unanimous in agreeing that a cut of 25 per cent. or more could be made in the cost of commercial and industrial construction. It should be noted that a previous Round Table had made a programme for cutting waste in house-building, less than twelve months ago. The reduction in costs is now proposed to be made through broader standardisations and a quicker application of technical advances as produced by research organisations; by better planning and the study of design generally, so that "over-designing"—which is a common complaint in this country, also—could be reduced. The Government too was held to be responsible for the cutting-down of waste through equitable allocations of scarce materials and as a general co-ordination of Federal economy; at the same time it was stressed that the Government was the industry's largest customer. Local governments, bankers, materials manufacturers, and insurance companies and underwriters all had their parts to play in the drive to reduce costs.

The conference held that wider standardisation would save man-hours and materials and, therefore, money. In this sphere it was stressed that much greater over-all types of standardisation could be undertaken; for example, the bay-sizes of commercial buildings and that structural-steel stresses could well be increased by 20 per cent. How these suggestions could apply or compare with, say, our own usual factors of safety, would require detailed examination for which there is no space here.

In turn it was held that both architect and engineer can cut costs through efficient design and planning, both of site and in building details. We could maintain that this could well be extended to town planning and stress that efficient planning and design does not mean eccentricity. Extension and improvement of quality of uniform building codes is

essential; at present our American counterparts hold that these codes can be in opposition to conserving materials and manpower. We could well add that unification of building acts and byelaws is long overdue in this country.

Fire regulations are likewise non-uniform in both countries and many are over-conservative. Fire-grading and protection could well be subject to individual-case consideration and have speedier relations with new types of planning and materials.

The Round Table had something to say about substitute materials and observed that there were few reputable ones and many that had been used in the past merely caused troubles and increased first and maintenance costs.

Lastly the conference came down very decisively in favour of general Modular Co-ordination. That this had not been quicker in development was laid at the doors of designers, builders and the manufacturers of materials and components with almost equal responsibility. What was emphasised was that nobody disagreed with the idea in principle. It came out that Federal Government Departments believe in modular co-ordination but think it must not be imposed but achieved through education and belief. What is significant, however, is the continued work that is being done by the American Standards Association on this subject and the continuation for another year of the American Institute of Architects' Office for Modular Co-ordination for another year, with new terms of reference. Still more significant are well-designed booklets on the subject which are issued by the Housing Administration of the Government at Washington. The Round Table Conference thought that modular co-ordination offered potential savings in the entire construction of the Federal Union of some £700,000,000 a year.

There are a lot of points in all this that, sooner or later, our own industry will have to take up and make decisions upon, even if to do so means much basic reorganisation.

EVENTS AND COMMENTS

THE FESTIVAL OPENS

IT was a tremendous week. The first part was occupied with excited preparations both official and personal the second by two days of splendour. Gaiety mingled with goose flesh and lumps in the throat. St. Paul's makes a wonderful setting for a state occasion. The general ceremonial has been described in the papers and on the radio, but experienced as the writers and talkers are they cannot quite convey the quality of the atmosphere when for example the Corps of Gentlemen at Arms, enormously tall in their cocks-plumed helmets march in slow time up the centre aisle. They have the measured tread of veterans; they are the British Army of yesterday. The Yeomen of the Guard on the other hand are not quite so awe-inspiring. I do not mean that they too are not dignified but they seem more human, more homely. I have often spoken to a Yeoman but I would never dare to address a Gentleman at Arms.

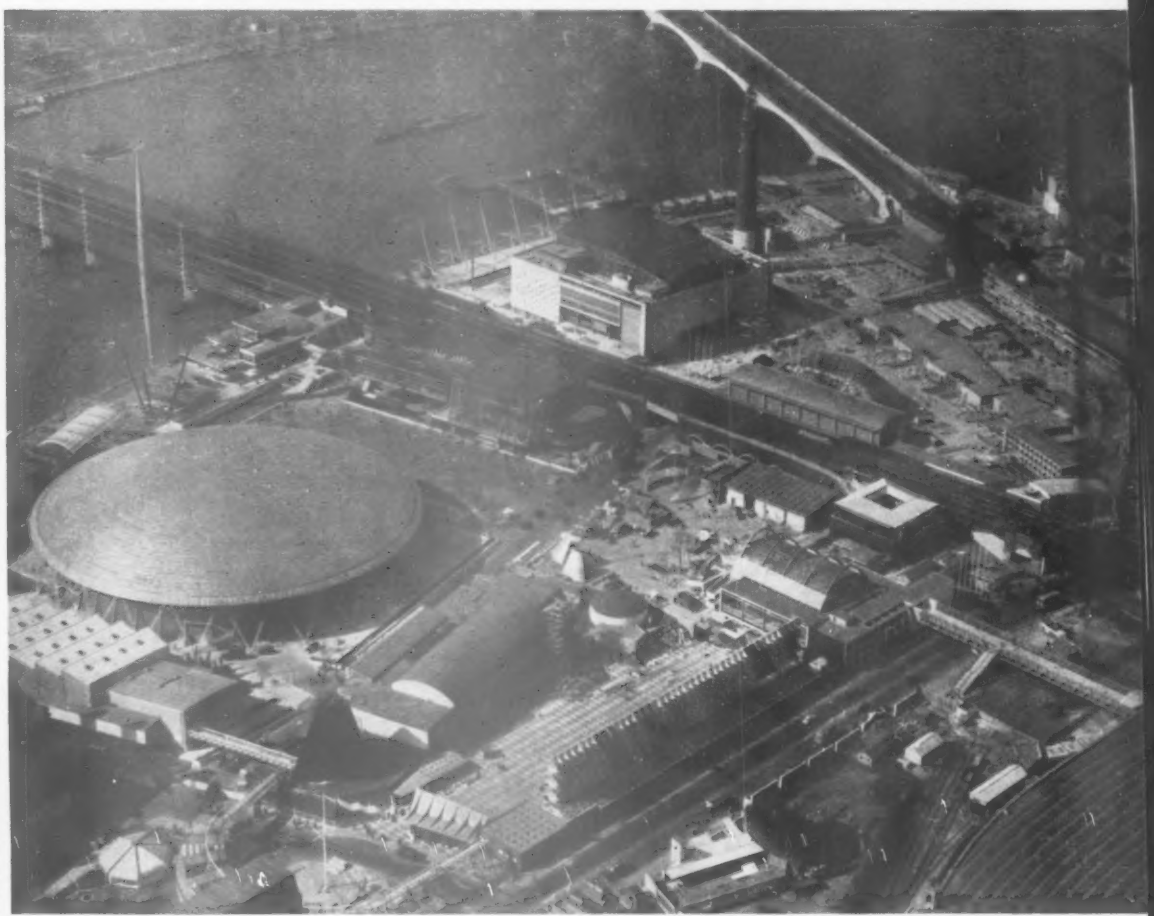
Before the service the Gentlemen at Arms and the Yeomen Warders were drawn up facing each other at the west end of the cathedral and made a noble background for the arrival of distinguished guests. The nave was almost filled with mayors and representatives of local government from all over the country. Many of the mayors wore their scarlet robes. Officials and ushers moved up and down the aisles noiselessly except for the clank of spur or sword or the chink of decorations.

A great cheer outside announced the arrival of the King and Queen who were greeted by the Dean of St. Paul's and the Archbishop of Canterbury with full ceremonial robes before passing into the cathedral where Queen Mary and other members of the Royal Family were waiting. For all the splendid uniforms and beautiful clothes it was a charming family reunion with the two small princes obviously feeling much as any other small boys would on such an occasion. Only the sharpest eyes detected the signals given by officials for the procession to proceed. A mighty fanfare from the trumpets of the Kneller Hall Band stationed over the west doorway officially announced the Royal arrival in the cathedral. These fanfares immediately make me want to cry although I believe that the piston trumpets used infuriate some old cavalry officers who think that they are not quite the thing. The fact is that the cavalry trumpet has neither the range nor the power necessary for these blood curdling royal fanfares. After the service which included some beautiful music and a forthright address from the Archbishop of Canterbury, the national anthem was played with trumpet obligato. I had not heard this before and did not like it, for with its complicated harmonies it had the effect of stopping the congregation singing in the second half of the verse. The royal procession returned to the chapel of St. Michael and St. George while arrangements for the King's address from the portico were completed. Outside the chapel the officers of Arms, Portcullis Pursuivant, Bluemantle Pursuivant, Rouge Croix Pursuivant, Richmond Herald, Chester Herald and Lancaster Herald — how the names thrill — in scarlet and gold tabards waited motionless facing the chapel as if saying, we are ready, now, or at any time in the next two hundred years! An official informed the King that all was ready, the Heralds turned, the Lord Mayor, a magnificent figure, raised the pearl sword of the City of London and with infinite dignity led the King, the Queen and Queen Mary through the West door. The King's speech declaring the Festival open was relayed inside the cathedral and when the royal party had left in their carriage procession and the diplomatic corps had left their seats the main body of guests dispersed impressed and strengthened by their experience.

THE FESTIVAL HALL

GETTING away from the cathedral was difficult and at one point having left the building by the workman's entrance I found myself four rows back in a heavily penned-in crowd whence I was rescued by a friendly plain clothes policeman. No sooner had I had

Contemporary toy model in lead, one of the exhibits in the "Great Exhibition of 1851" at the Victoria and Albert Museum. Below: A comprehensive aerial view of the South Bank Exhibition.



lunch and signed my letters at the office than it was time to change for the ceremonial opening of the Royal Festival Hall. With the idea of arriving as the door opened I took a cab and we soon were clogged in traffic at the end of Birdcage Walk. The cabby told me that the alterations to Parliament Square had made circula-

tion very much more difficult, and it certainly looked as if he was right. We jostled the sleek black cars of foreign diplomats all the way across Westminster Bridge and into York Road, where crowds were waiting to greet the King and Queen. The people were in happy mood teasing the dressed up guests with friendly badinage. Inside the exhibition there was feverish activity as last minute panic prevailed.

Outside the temporary main entrance to the Hall on the Waterloo Bridge side a somewhat cumbersome space-trace awning had been erected. It may look well from a distance but from underneath it is not a great success. Inside the hall great crowds stood chattering in wonder and amaze. Those who like me were foolish enough to want to leave things in the cloak-room queued for some time while a hard working but numerically inadequate staff tried to deal with hats, coats and umbrellas. I should have learned by experience for at first test concert I had in the end to go behind the scenes and identify my hat. The tickets issued on Thursday were those paper bus tickets designed for the convenience of the machine which issues them, far too frail for the job, and extremely indistinct as to number. Objects deposited were placed in pigeon-holes, and as experience showed at the end of the concert not always in the right pigeon-holes. As at present organised the cloakroom system does not work. I have no doubt that something is being done about it.

There was a moment of considerable tension when Sir Adrian Boult resplendent in his doctor's robes stood watching the royal box for the King and Queen to appear. The state trumpeters of the Royal Horse Guards, standing in a row at the back of the orchestra and choir, also watched. A signal, and the trumpeters sounded off. The tension was over.

It was a memorable evening, the Royal Family, looking exactly as Kings and Queens and Princes and Princesses should look, obviously enjoyed themselves, particularly during the tremendously spirited rendering which Sir Malcolm Sargent who is admirable on such occasions, gave of Arne's Rule Britannia. On my first visit to the hall I was a little nervous that a full choir and orchestra would not fill the auditorium with noise. I was entirely wrong, the volume was magnificent; only in the very quiet violin passages did there seem to be anything wrong and then I thought the tone was a little buzzy.

The loudspeaker equipment in the hall is particularly good. Both the B.B.C. commentary of the arrival of the King and Queen and of the address by the Archbishop of Canterbury, who took a short service of dedication before the concert, being exceptionally clear.

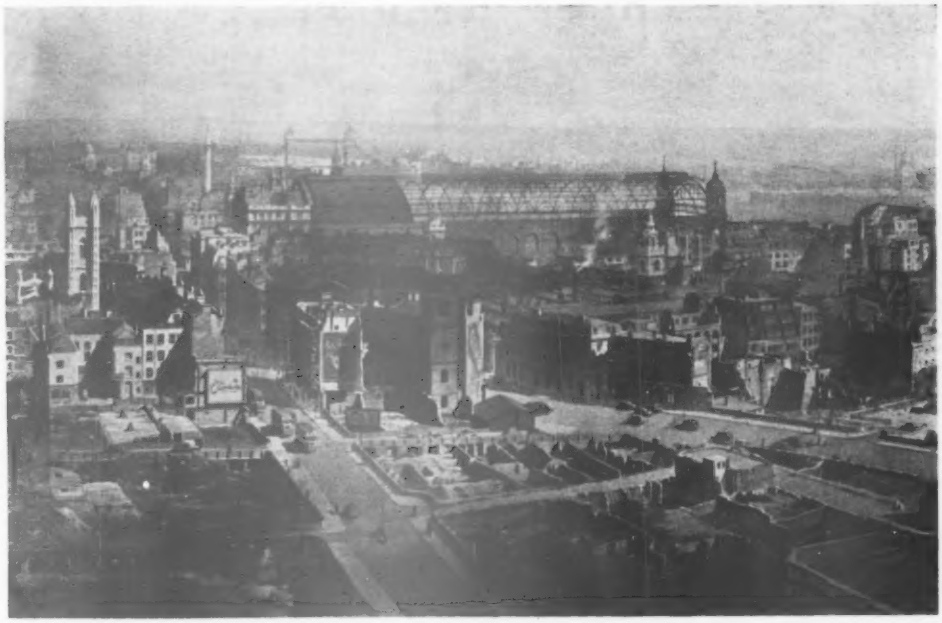
During the service the Lord Mayor of London with the Lady Mayoress, General Lord Ismay and Mr. Gerald Barry were stranded in a lift between two floors. I am told that the Lord Mayor made the eleventh person in the ten person lift and that the lift attendant dazzled by so much splendour was struck dumb and made no objection. Luckily there was a telephone in the lift and once the man in the control room had been persuaded that it was not all a huge practical joke, the party was soon released.

In the interval the guests left the auditorium to smoke. I noticed that most of them preferred to remain jammed in the small foyers immediately outside the doors rather than to descend to the main open spaces. It will be interesting to see whether this becomes normal practice or whether in time audiences will make use of the main foyers. The large dishes of sand for cigarette ends at ankle level are, in crowded conditions, a menace. The warning bell to re-enter the hall is a repeating gong of somewhat synthetic tone but all the same is much better than the more usual alarm-clock-cum-back-door type. The restaurant, all prepared to serve its first meal, looked very tempting, and, I am bound to say, highly Swedish. The view through its two levels was particularly good. Every fourth person seemed to be an Ambassador, a cabinet minister or a distinguished architect. Unfortunately there were just enough people not dressed for the occasion to spoil the overall glitter, but it is perhaps a little churlish to say so.

As I walked down the heavily carpeted but hard nosed stairs admiring the festival lights of London I noticed a gardener feverishly planting flowers in a pot outside, and I left the exhibition site to the crash of loading scaffold poles. There were just twelve hours to go.

THE SOUTH BANK EXHIBITION

I HAD seen the site twice during the erection of the exhibition. The last time was about six week ago. Even allowing for the fact that I have been an ardent supporter of the cause and among those who have insisted that it would be finished in time, I was amazed at the transformation. It is true that here and there one found unfinished corners—and wet paint notices—but they were few and comparatively unimportant—except one imagines to the designers responsible. I have so far only made a hurried visit and that in pouring rain. If you choose a wet day wear goloshes because some of the falls are not all that they might be. The general effect is excellent and having seen most of the buildings either during erection or in pictures I was immediately struck by the design of the kiosks and street furniture, the litter and cigarette bins, the brightly coloured chairs and the flower pots. All first class and, let us be frank while unkind to no one, a tremendous compliment to Scandinavia. I was prepared to be disappointed by the inside of the Dome but it has succeeded beyond all my expectation. Many of the displays in it are admirable and obviously a day must be devoted to inspecting them. All the restaurants and cafes which I saw looked delightful and if the example they set in design does not revolutionise outdoor and indoor eating in this country it will be surprising. If all post offices were as pleasant as the one near the County Hall, mauve open-work jumpers would be a thing of the past. I liked all that block with its well arranged information offices, telephone booths and kiosks. I wonder who will be the first person to step into the pond, I very nearly did. I hear that two people have already walked through plate glass partitions in the Festival Hall. Agriculture too is excellent and full of ideas too numerous to detail. Someone who should know did however tell me that the dairy floor falls the wrong way. The empty milk cartons are a problem that has probably been dealt with by now but on the opening day they were stacked in small mountains in every corner. The Skylon succeeds completely and is most dramatic, although I did dream last night that dry-rot had developed in it. I stood immediately beneath it as I had promised myself I would and was duly impressed. For pure fascination, however, I recommend the mechanical fountain, wave machine or whatever it is called. A contrivance carrying balanced receptacles of varying sizes which fill with water and tip up with a most delicious seaside noise. A sort of automatic bath splasher which will be wonderful in hot weather. The display of boats is charming as is the whole of the area round the Shot Tower. More



The City of London from the Stone Gallery of St. Paul's Cathedral—Section VII. *Lawrence Wright*

than this I could not take in on my first visit but paddling home across the Bailey bridge I knew that the South Bank Exhibition had come off, and in a big way. Congratulations to all the organisers, designers, contractors, workmen and indeed to anyone concerned with the enterprise.

BUT THE BEAVERBROOK PRESS STILL GOES ON BLATHERING

IF the *Evening Standard* does not soon stop talking nonsense about the Festival in general and the South Bank and Festival Hall in particular it will be in danger of being laughed out of it. The childish leading articles which have been appearing recently are not worthy of a national paper. The line now being taken is that the Great Exhibition paid, The Festival of Britain cannot. The *Evening Standard* keeps harping on the point that the taxpayer will have to foot the bill. I do not think that this has ever been denied. If the taxpayer wants the best value for his money I suggest that he goes to the South Bank—for he will not only immeasurably increase his self-esteem as a member of the British nation—and this is badly needed just now—but he will also help to reduce any deficit which the Festival may incur. If the *Evening Standard* really has the good of the taxpayer at heart it should encourage everyone to take a full part in the Festival.

ARCHITECTURE WITH A CAPITAL A

THE Royal Academy stuck to its traditional day for the private view in spite of the rival show at the South Bank. The result was an unspectacular gathering, before lunch at any rate. No morning coats except on an Academician who bitterly attacked the festival architecture in earlier days. No wonderful hats were to be seen perhaps because there were no photographers waiting for them outside.

The pictures are much as usual with the trend towards more modern methods continuing strongly. Sculpture has once more been spread among the galleries and is I think better so. On Friday the architecture room was as always more or less deserted and quite honestly it deserved to be. Some of the contributions by academicians and associates were remarkable not only for their poor design but also for their weak draughtmanship. There were however some good building and some very good drawing including a number by Lawrence Wright whose latest work in his series of panoramas of London is reproduced on this page. I feel that Raymond Erith has let us down this year. The painting of his Merton College building is not nearly as interesting as his own architectural drawings usually are.

RECANTATION

WHEN the Festival symbol appeared I greeted it somewhat lukewarmly. I take it all back. Having seen it in all sorts of forms I have come to the conclusion that it is among the best of its sort. It looked particularly well die-stamped in gold on the St. Paul's Order of Service.

APOLOGY

IN my note on the Festival Hall last week I described Peter Moro as one of Mr. Matthews' principal assistants, instead of "Associated Architect." My apologies. However, the Editor and Printer are even more contrite for the prefix "Mrs." in front of Mr. Cecil Handisydes' name.

ABNER

NEWS OF THE WEEK

M. Victor Bure, the Belgian President of the Housing sub-committee of UNESCO, will arrive in this country on May 19. M. Bure, who is also a member of the Bureau of the International Federation for Housing and Town Planning, is to be the guest of the Association of London Property Owners.

During his visit, which is to last three days, he will tour the South Bank Festival site and the new Lansbury estate, when he will discuss Local Government and Planning with Mr. R. H. Matthew, the Chief Architect of the London County Council, and will speak at the annual luncheon of the Association of London Property Owners to be held this year at Grosvenor House on May 22.

M. Bure will explain the system adopted in Belgium to solve the problems of housing, repairs and planning. It is expected that his experience in this field will provide useful pointers to the solution of these problems in this country.

*

An advisory committee for the Scottish Laboratory of the Building Research Station at Thorntonhall, near Glasgow, has been set up under the chairmanship of Mr. Lockhart W. Hutson, F.R.I.B.A., F.R.I.A.S. The committee will ensure that the work of the laboratory serves the special requirements of Scotland, and will also help to link it closely to the Scottish building industry.

*

The Minister of Local Government and Planning, Mr. Hugh Dalton, has informed the Isle of Wight County Council that he intends to approve an order making a large part of the island an area of special control in the matter of outdoor advertisements.

The area of special control extends over the whole island with the exclusion of a number of built-up districts in the main towns and villages.

*

The Royal Pump Room, Harrogate, no longer used for serving waters, is to be turned into a museum at an estimated cost of £1,930. The dome was repaired recently at a cost of over £3,000.

APPOINTMENT

Mr. Leonard Howarth, A.R.I.B.A., Assistant Chief Architect for housing to Glenrothes Development Corporation, Fife, has been appointed Deputy Chief Architect and Planning Officer in succession to Mr. A. McRobie, who is taking up an appointment at the Edinburgh College of Art.

New B.S.S.

The following new British Standards have been published. B.S.1347: Pt. 2: 1951, Boxwood Scales for Quantity Surveyors; and B.S.1709: 1951, Nomenclature for Drawing Instruments. Price of each 2s., post free from the B.S.I. Scales Dept. 24 Victoria Street, London, S.W.1.

Housing Needs of Old People, Single Workers, Students and the Disabled

A REPORT from a Sub-Committee of the Central Housing Advisory Committee on *the Housing Needs of Old People, Single Workers, Students and the Disabled*, has just been published by H.M.S.O., price 2s.

The Sub-Committee were originally appointed to help the Ministry of Health in revising the Housing Manual, 1944, and the results of their earlier work were incorporated in the Housing Manual, 1949. They have now reported under extended terms of reference, and the Minister of Local Government and Planning has sent to all housing authorities in England and Wales a copy of the report in the form of a supplement to the Housing Manual, 1949.

It recommends standards of accommodation for able-bodied old people, single workers, students and apprentices, disabled people, district nurses and midwives, and higher income groups. Special attention is devoted to hostels, for which the Housing Act, 1949, first provided an Exchequer contribution. The accompanying circular says that Mr. Dalton considers the report to contain many valuable recommendations, and he commends it to the careful study of all housing authorities. He regards the sections dealing with accommodation for old people as of particular importance in view of the ageing of the population.

The report stresses the necessity for effective co-operation between all authorities concerned with providing accommodation for the special needs of old people. There have been consultations, with this object in view, between the members of the Sub-Committee, the associations of local authorities concerned with housing and welfare, and officials of the Ministry of Local Government and Planning and the Ministry of Health.

The Sub-Committee consisted of Sir Miles Mitchell, Chairman; Mr. W. R. Allerton; Mr. Louis de Soissons, A.R.A., F.R.I.B.A.; Mr. S. G. Dilnot; Alderman G. B. Eddie; the Rev. St. John B. Groser; Sir Lancelot Keay, P.P.R.I.B.A.; Miss Jennie Lee, M.P.; Mr. P. L. Leigh-Breese, F.I.HSG.; and the Dowager Marchioness of Reading.

Summary of Recommendations

The Report of the Sub-Committee is presented in a similar layout and method to that of the Housing Manual, 1949, and contains a number of plans and photographs illustrating the text. Below is a summary of the Sub-Committee's conclusions and recommendations:

Old People

(1) Accommodation should be designed with the particular needs of old people in mind; it should contain fitments which simplify housework; and special precautions should be taken to minimise the risk of accidents.

(2) Effective co-operation is necessary between all concerned with the special needs of old people, in particular the housing and welfare authorities. Old people should be conscious of this co-operation, so that they may know where they will go when they pass from the care of one authority to that of another.

(3) Local authorities should plan housing accommodation for old people as part of their programmes of house-building as a whole. They should remember that population trends are towards an increase in the number of old people, and also that a part of the need may be unexpressed.

(4) Accommodation for old people should be provided in one-storey or two-storey self-contained dwellings, in two-storey blocks of flats, flats on the lower floors of higher blocks, or in hostels, where the amount of space under the control and care of the old person is at a minimum.

(5) As regards self-contained dwellings, the Sub-Committee endorse the recommendations made in the Housing Manual, 1949. An auxiliary means of water heating and a coal fire in the bedroom are recommended. Detailed recommendations are made about design and fittings. A communal garden in front of the dwellings is recommended with a small plot of ground for private cultivation in the rear of each dwelling and convenient access to allotments for the active gardeners.

(6) Hostel blocks should be designed for about 30 old people, should normally be not more than two storeys in height and should contain communal rooms, dining rooms, kitchen and some bed-sitting rooms on the ground floor, with the remaining bed-sitting rooms and a self-contained flat for the warden on the first floor. Rooms for single men, women and married couples should be mixed and should be planned to get sun for part of the day. The building should be centrally heated with radiators in all rooms, halls and passages with open fires in addition in the common rooms. It is particularly important that each single person should have a separate bed-sitting room; 140 sq. ft. is recommended as a desirable standard and 108 sq. ft. as the minimum standard for this. Double rooms should be at least 180 sq. ft. All bed-sitting rooms should have a fitted wash-hand basin, built-in cupboard, an electric fire, an electric bell near the bed, a good central light, a point for a bedside lamp and adequate natural lighting. The communal rooms which will be necessary are a dining room (with small tables), one or two lounges and a small reading or smoking room. Detailed recommendations are made about sanitary accommodation and ancillary accommodation.

(7) As regards siting of dwellings the Sub-Committee endorse the recommendations made in the Housing Manual, 1949. Some old persons' dwellings should be dispersed among other types of accommodation; but there are advantages in siting others in groups of about 20 cottages. Dwellings should be provided in all residential districts in towns, and hostels should be provided in the same area. The advantages of a very large scheme catering for all categories of old people are discussed.

(8) The communal services which it will be possible to provide for old people will vary according to the type of dwelling in which they are housed. In hostels the Sub-Committee recommend a communal restaurant, central heating and laundry facilities; the local authority could exercise their powers under Section 7 of the Housing Act, 1949, for the laundering of heavier articles. In separate dwellings the communal services that can be provided will be few, and flats in blocks will fall between these extremes.

(9) In hostels the presence of a warden is assumed. In cottages and flats, someone should be available to attend the old people in their homes and the home help

R.A. Exhibition. Pace Buildings (Men's Rooms) Durham University.
Architect: E. Vincent Harris, R.A. *Draughtsman: Lawrence Wright*

service may meet this need. In the view of the Sub-Committee it is not necessary to have a resident nurse among the old people, but there should be someone who can call for a nurse or doctor when needed. A system of regular visiting of old people living alone should be instituted and this might be arranged through local voluntary associations.

(10) Clubroom facilities are very important. They should be easily accessible from the dwellings.

Single Persons

(11) Suitable accommodation for single workers should combine two things—privacy in the individual apartment, which should be capable of use not only as a bedroom but also to some extent as a sitting-room or study, and a reasonable standard of comfort both in the individual apartment and in the communal rooms and amenities. Ideally a wide range of accommodation would be required to meet their varying tastes and needs, but in general that suited to the great majority will be hostel accommodation. Close co-operation between the housing authority and the authority administering the Children Act, 1948, concerning the provision of hostels for young workers is essential.

(12) Local authorities must make their own assessment of the extent of the need but some guidance may be obtained from University authorities, Ministry of Labour, large employers and voluntary bodies, etc.

(13) The Sub-Committee envisages that the hostels will be sited in a residential area as part of or an adjunct of a housing estate, or in a more central position near the business or commercial area of the town. They should be designed with the common rooms on the ground floor and the private living rooms above. The common rooms should face south or west and the private rooms, south-east, south or west. There should be controllable central heating.

(14) The standards of accommodation recommended are much the same as for old persons, but for young students and apprentices who require inexpensive accommodation for a limited period something less than 140 sq. ft. is recommended.

(15) The Sub-Committee considers the average need is best served by a full service of communal meals. In hostels where there are women residents laundry facilities should be provided on the scale suggested for old persons, but for men's laundry and for heavier articles for all types of persons the Sub-Committee thinks the local authority could exercise their powers under the Housing Act, 1949. A warden will be necessary to supervise the running of the establishment and he should have a self-contained flat with at least two bedrooms.

Disabled Persons

(16) Dwellings for disabled persons should be mixed in the layout with normal family dwellings and the site should be within easy reach of places of employment. Bungalows are preferable to two-storey houses. Where the person is confined to a wheel-chair, the plan of the dwelling and the design of the fittings must be governed largely by this factor, and detailed recommendations on standards of accomodation and special fitments are made with this in mind.

District Nurses and Midwives

(17) For a district nurse or midwife the Sub-Committee recommends a house which is designed to meet her special needs, but which, at the same time, can easily and inexpensively be converted into a normal family dwelling. An appendix includes plans of houses adapted from the Housing Manual, 1949, and modified to include a separate patients' entrance (which also serves as the back door of the house), a waiting room, a small district room equipped with a sink and boiling ring, a second w.c. for patients, and a garage with extra storage space. Where the local health authorities themselves propose to build the houses, there should be co-operation between them and the housing authorities to secure that estates are considered as a whole.

Higher Income Groups

(18) Under the Housing Act, 1949, it is the duty of local authorities to consider the housing needs of all members of the community and this includes larger houses for higher income groups. Local authorities should be free to design as wide a variety of dwellings as is necessary to suit the needs of the community.

EXHIBITIONS

Exhibition of Architecture, Lansbury, Poplar

10.30 a.m.—8 p.m. Sundays, 12.30—8 p.m. Open until September 30.

South Bank Exhibition

10.30 a.m.—11.30 p.m. Sundays, 12.30—11 p.m.

Sculpture in the Open Air

International Exhibition in Battersea Park. 10 a.m. until dusk, including Sundays. Open until mid-September.

Harlow New Town Festival Exhibition

Open 10 a.m.—4.30 p.m. Mondays—Fridays.

Fun Fair and Pleasure Gardens, Battersea

Weekdays 10.30 a.m.—11.30 p.m.

1851 Exhibition, Victoria and Albert Museum

10 a.m.—6 p.m. Sundays, 2.30—6 p.m.

Exhibition of Exhibitions, Royal Society of Arts

10 a.m.—6 p.m. Mondays—Saturdays. Wednesdays 10 a.m.—8 p.m.

CORRESPONDENCE

Architects Registration Council of the United Kingdom

To the Editor of A. & B.N.

Sir,—I am instructed by my Council to draw attention to the position of architects who, having ceased to practise their profession, are carrying on business as builders or as manufacturers or dealers in building materials or directors of companies engaged in such undertakings.

Strictly and technically such persons are not infringing the Code of Conduct, Principle VII of which reads as follows:

"An architect must not, *while practising his* profession, carry on or engage in any operation of trade or business inconsistent or out of keeping with the fitting and proper discharge of his professional duties."

It is, however, considered most undesirable that an architect, although not in practice, should remain on the Register if he intends to embark in any such business as referred to above, and the Council fully endorse the following extract from a report of their Discipline Committee in a recent case:

"The Committee consider it necessary to state that it is desirable that any architect who intends to embark in business as a builder or builder's merchant should not be content merely to refrain from practising as an architect but in order to avoid misunderstanding should resign from the Register—relying on his right under paragraph 26 (4) of the Regulations of the Council to be readmitted at any time should he wish to return to practice as an architect.

"To carry on any such business as referred to above while still on the Register must inevitably place an architect in an equivocal position and make him liable to adverse criticism."

I am, etc.,
PEMBROKE WICKS,
Registrar.

Caravan Problems

To the Editor of A. & B.N.

Sir,—Your leading article of April 27 makes some sound points, and I am sorry its value is reduced by certain prejudices.

You say the caravan holiday and residential demand was "cleverly anticipated and met by private enterprise" as if there were something reprehensible about private enterprise and about catering for a genuine public need. No one denies the miseries caused by the housing shortage. As regards holidays, it seems to be generally overlooked that as a result of national policy the number of people who can take an annual holiday away from home is now between 100 and 150 per cent. above pre-war figures. Yet practically nothing has been done to meet this need except by the caravan industry.

Of course the industry works for profit, and this Club has been the first to complain when its black sheep have produced shoddy caravans or set up hideous caravan sites, but the industry must be given credit for doing quite a lot to help homeless people and those wanting inexpensive holidays at a time when no one else has been able to help them.

The unsightliness of caravanning as it is found in many districts is not necessarily due to either the manufacturers or the occupiers. Most of it is due to the failure to recognise this big new social development in time and to provide adequate sites. Even where the site operators are greedy and unscrupulous men, directly to blame for eyesores, they could not continue in their ways if their customers had anywhere better to go.

Your comment on caravan colouring comes strangely from an architect's journal which should need no instruction in what are the technically correct colours or in the aesthetic validity of fitness for purpose. The light colours in which most caravans are finished are those which keep them most cool in hot summer. Greens and browns make for measurably higher temperatures inside.

It is a fallacy that a feature that does not match the background must clash with it. Who objects to a whitewashed cottage in a green landscape? Clashing is rather a matter of density and unsuitable grouping in relation to the surrounding landscape.

I am, etc.,
W. M. WHITEMAN,
Hon. Public Relations Officer,
Caravan Club.

The part played by caravans since the war has been invaluable, and nothing is "implied" that is not stated. As regards the reflection of the sun's heat we are tempted to ask "What sun?" Is there not confusion here between "tone" and "colour." A whitewashed cottage in a green landscape is nicer than a whitewashed cottage in a green landscape dotted with dozens of cream boxes. Thank you for putting it so well. Ed., A. & B.N.

F. o. B. Trains

To the Editor of A. & B.N.

Sir,—On page 411 of your issue of April 13, 1951, you show a photograph of one of the new first class compartments in the Festival of Britain Trains. While the seating, window and lighting arrangements seem admirable, I would draw your attention to an irritating fact which seems to be repeated in every modern train in this country, namely that despite the social changes that have taken place since the 1914-18 war as a result of which many people now take hand-luggage only even when they are going away for a summer holiday, our railways still continue to provide for the compartments the kind of luggage rack which used to be marked "For light articles only."

On the continent, on the other hand, they have long since taken to providing much stouter and deeper racks which can accommodate the heaviest suitcase without endangering the heads of those sitting below in that the luggage can neither crash through them nor topple over off them.

The absence of adequate racks in this country entails that excessively tiresome feature on most of our long-distance trains, namely corridors cluttered up with miscellaneous luggage too big to go on the inadequate racks and too large to go under the seats.

I am, etc.,
B. ENGERT.

IN PARLIAMENT

Industrial Building

MR. WATKINSON asked the Minister of Local Government and Planning if he would take steps to simplify the procedure necessary to obtain authority for the erection of industrial buildings. **Mr. Dalton** stated that he had made some simplifications last year. If Mr. Watkinson had any further suggestions about industrial buildings he would be glad to consider them. (May 1).

More Bricks This Year

Mr. Bossom asked the Minister of Works what quantity of bricks he proposed to request the brick industry to produce this year; and how this quantity compared with that produced last year. **Mr. Brown** stated that he had already asked the industry to raise its annual production to a rate of 7.4 thousand millions as soon as possible. The production last year was approximately 6.0 thousand milllions. (May 1.)

Fuel Economy

Mr. Phillips Price asked the Minister of Local Government and Planning whether he had considered the report of the departmental committee on fuel economy, recommending the insulation of newly-constructed houses to conserve heat; and what steps he was taking to implement it. **Mr. Dalton** said that he had considered the report and would soon circulate advice to local authorities on this subject. (May 1.)

Safety Regulations

Mr. Bevins asked the Minister of Works whether, in view of the increased accident rate in the building industry, he was satisfied with the operation of the Building (Safety, Health and Welfare) Regulations, 1949. Mr. **Robens** replied in the affirmative, but added that, as pointed out in the annual report of the Chief Inspector of Factories for 1949, an indirect effect of the new Building Regulations which came into operation in October 1948, appeared to have been more widespread. Compliance with the statutory obligations to notify non-fatal accidents, and the larger figure of notified accidents did not therefore mean that more accidents occurred. Fatal accidents were as much as 11 per cent. fewer in 1949 than in 1948. (May 3.)

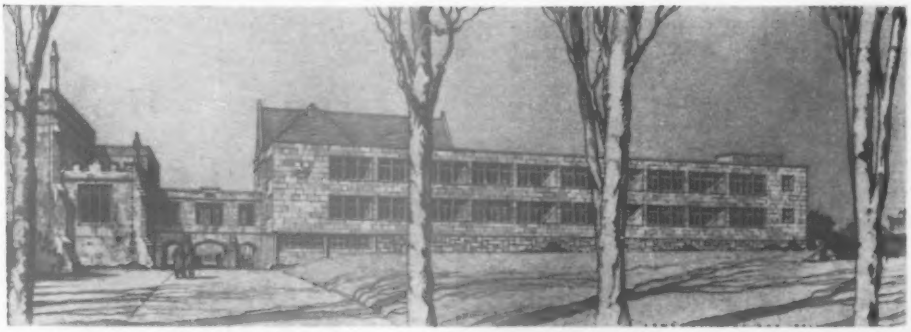
(From Our Parliamentary Correspondent)

* * *

Tynemouth Development Plan

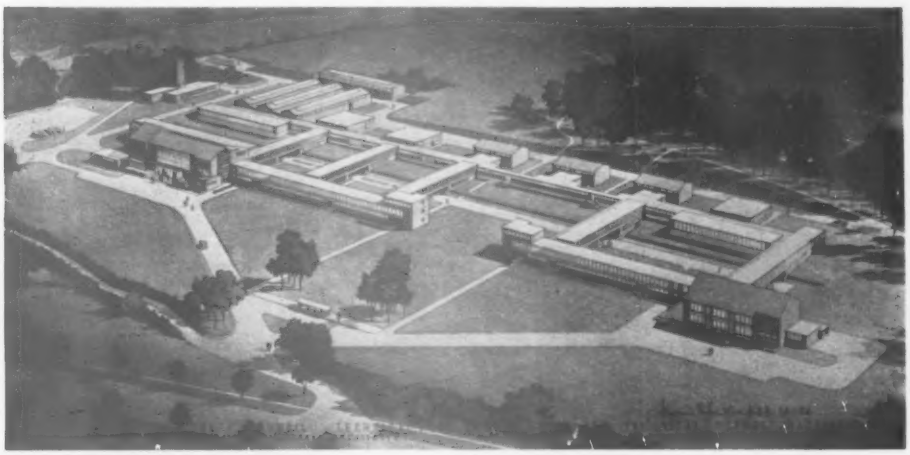
The Development Plan for the County Borough of Tynemouth was approved by the Minister of Town and Country Planning on December 5, 1950, and was the first in the country to be approved under the Town and Country Planning Act, 1947.

Limited copies are now available for purchase in the form of a Written Statement, Town Map and Programme Map at an inclusive price of £1 1s., and may be obtained from the Borough Surveyor, Mr. D. M. O'Herlihy, B.SC. (Eng.) M.I.C.E., 16 Northumberland Square, North Shields, Northumberland.



Queen's College, Taunton: Classroom Block. Architect: Edward D. Mills. Draughtsman: Lawrence Wright.

Stanford-le-Hope Secondary School. Architect: Gerald Lacoste. Draughtsman: Lawrence Wright.



Technical College and Secondary Technical School Hatfield, for the Hertfordshire County Council. Architect: Howard Robertson, A.R.A. (Easton & Robertson). Draughtsman: Lawrence Wright.

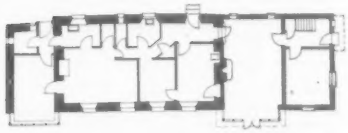
ARCHITECTURE AT THE ROYAL ACADEMY

CONVERSION

Tiptoe House

Old Egypt

NORTHUMBERLAND



GROUND FLOOR PLAN BEFORE CONVERSION

ARCHITECT: BASIL SPENCE & PARTNERS

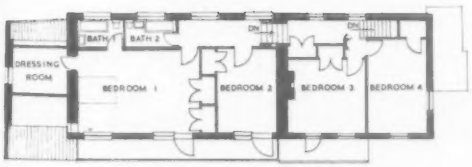
THE house is situated near the Scottish border a short distance from Berwick-on-Tweed. Before conversion, the property consisted of a badly-designed modern portion attached to a traditional stone and pantiled cottage.

The present conversion consisted of enlarging the Living Room and making a new Dining Room and Kitchen, and adding three Bedrooms and two Bathrooms, only one of which was allowed in the licence.

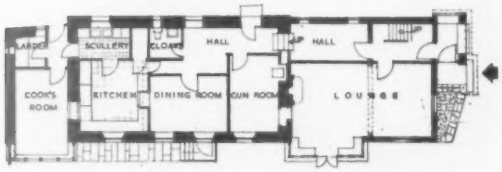
In order to integrate the design, a long balcony was designed tying up with the existing balcony which, however, had a wooden balustrade of bad design, which was removed. The original porch was also removed, being out of scale, and the whole whitewashed, including the stone cottage. The difference in texture between the whitewashed brick and the whitewashed stone makes an interesting contrast. The roof is tiled with old pantiles; the upper parts of the bedroom extensions are covered with cedar shingles; timber supports to the balcony were left natural, and the front door and parts of the steel french windows to the balcony were painted bright yellow.

Contractors: D. Storar & Sons, Berwick-on-Tweed.

THE NEW SOUTH ELEVATION



UPPER FLOOR PLAN

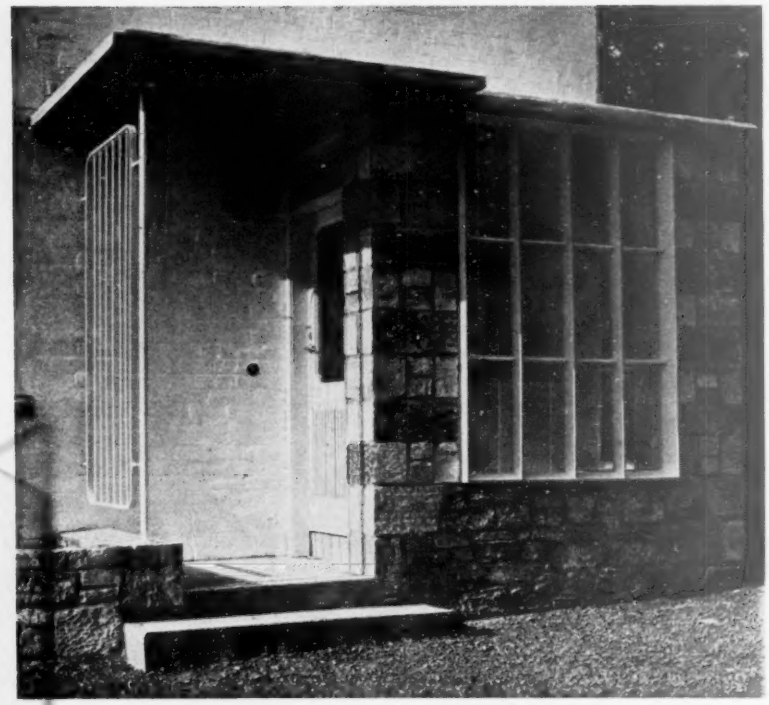


GROUND FLOOR PLAN

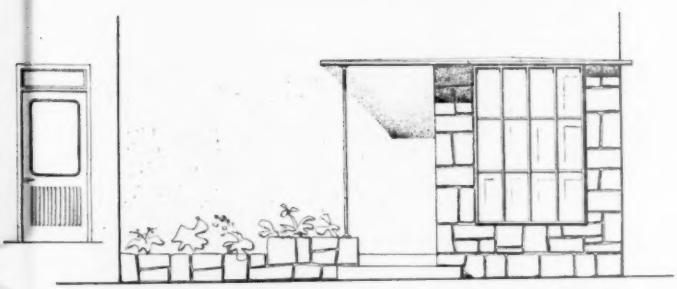
The South Elevation, showing the cedar shingle-faced bedroom extension

Above: The Dining Room, with an existing partition removed and a window made into a doorway leading to the terrace. Below: The Lounge, which has been enlarged by moving an existing wall, and been divided from the Entrance Hall by a new 3½in. breeze partition.

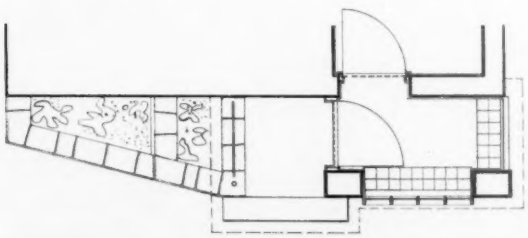
Bedroom 1 and steps leading from the existing first floor of the house to the new bedroom extension



The Main Entrance on the East Elevation. An existing canopy over this position has been removed, and the existing front door has been adapted and re-used.



ELEVATION AND PLAN
OF THE ENTRANCE PORCH



TIPTOE HOUSE
NORTHUMBERLAND
architects:
BASIL SPENCE, O.B.E., F.R.I.B.A.
AND PARTNERS

POINTS FROM PAPERS

NEW TOWNS IN ENGLAND AND NEW ENGLAND

Extracts from a paper read by Professor WILLIAM HOLFORD *at the Architectural Association on April 25. Professor Holford was introduced by the Rt. Hon. Hugh Dalton, Minister of Local Government and Planning.*

THE RT. HON. HUGH DALTON, M.P., Minister of Local Government and Planning, said: For my part, I have always been slightly modernist, in architecture as in other matters. I want to assure you that so long as in this uncertain world I hold the office which I now occupy I shall do my best to promote good architecture and the importance of the architect in the planning world.

I have always been a great supporter of the idea of New Towns. It is a long time since anybody started to build a new town in open country, but this is one of the adventures which we have given to the architects and planners of to-day. It is a very long time since you have had the opportunity of building on a hitherto unspoilt site a completely new community, and I am passionately interested in the development of the New Towns.

We have now a fairly good and rising curve of construction in the New Towns, and so far as I can speed the work I will. One of the beauties of the new situation is that we have now collared the whole thing; whereas before we had to go and see the Ministry of Health, we in the new Ministry of Local Government and Planning can settle it all. We shall now, I hope, be able to get the New Towns and their sewerage and water-supply and so on moving rapidly forward and give them a high priority.

London is our great planning mistake; it should never have been allowed to grow beyond its size at the beginning of the first world war. We must still try to prevent any further misplanning of London.

Dame Evelyn Sharp and I have all sorts of projects for gradually squeezing people out of London into New Towns and other places and pulling down a lot of London. Augustine Birrell was once invited to unveil a statue to somebody, and he said "How much happier I should be if I had been invited to go and veil a number of the existing statues." I should like to veil for ever a great deal of what is now London.

* * *

Professor WILLIAM G. HOLFORD, M.A., F.R.I.B.A.,: The idea of designing, organising and building model communities, not necessarily to the same target populations as the British New Towns, permeates the whole of American planning thought. There is a New Town movement in the United States which has been on the move for, I think, thirty years, but it has not in fact reached its objective, and least of all in New England. I found the differences of approach and the difference of method in the two countries so interesting, and the similarities so unimportant, that I thought that I must assemble my impressions and make a coherent story of them.

The most striking fact is that in spite of their extreme interest in the Garden City, and in spite of their enterprise, no new towns are being built to this day in New England. There are, of course, historical reasons for this, particularly in the field of administration, but, when they have all been taken into account, the fact remains that no section of that great democracy can afford to build them. Strictly speaking, we cannot afford them either. I say that with some diffidence in the presence of a Minister who is a former Chancellor of the Exchequer, but they are not the cheapest or the quickest method of promoting building development. That is not to say, however, that in the long run, as a piece of national planning, they may not prove to be an essential part of our economy. We faced that fact during the war, and the machinery was set in motion by the passing of the New Towns Act in 1946.

We are working that machinery. We are working it more slowly than in 1945 and 1946 we expected, but other countries are looking to us to make a success of it and to prove our case. This is especially so in New England, where the New Town machinery does not exist but where all the technical, administrative and financial problems which our system is designed to solve are being studied. A stream of students and research workers, lecturers, teachers, practitioners in the field of housing and planning, come to this country; men like Clarence Stein, Lewis Mumford, Walter Gropius and others visit us and record their impressions. They examine the details very carefully and consider their difficulties and ours in a very realistic way. Curiously enough, we, who have the machine, do not overhaul the parts as often as they do. It is like a man who has a motor car and who does not look inside the bonnet so long as all is going well.

In the U.S.A., rent is at most levels a much higher proportion of a family's income than it is over here.

25 per cent. of the income for rent is nearer the maximum than the average for the U.S.A. as a whole. In fact, the policy of the Public Housing Administration towards those eligible for subsidised housing is on a basis of five times the shelter rent: that is, 20 per cent. of the earnings, with 100 dollars exemption in the case of each minor.

The lower-paid workers in the U.S.A. are condemned to remain in the slums and in the rural shacks which one is surprised to find in such large numbers in that great country.

From the point of view of New Town promotion, however, these assumptions are not favourable enough to get New Towns going in America, when they are related to the estimated population structure and wage levels and to the actual costs of construction. The Harvard studies revealed that, to make ends meet, 50 per cent. of the families in these New Towns would have to be in what is called over there public housing, subsidised housing, while another 25 per cent. would require a small element of subsidy in the shape of low interest Government loans to housing co-operatives. This for the U.S.A. is a politically impossible situation and explains why there are in fact no New Towns in New England.

To create them there would have to be an overriding national motive, a peace-time planning campaign of unprecedented dimensions or some war-time emergency, either of which would perhaps lead to an overhaul of the existing legislation and policy. New Town housing, not in a single location but in many, would have to be financed as part of the housing and redevelopment programmes of the entire metropolitan area in which the New Towns were situated. These two conditions have not yet been present.

In England and Wales, with a land area very nearly as great as that of New England but a population five times as great, we have, through the Central Planning Authority, with guideposts such as Sir Patrick Abercrombie's Greater London Plan, gone some way towards satisfying both these conditions, but the same practical difficulties have to be met on both sides of the Atlantic. The greatest is the gap between purchasing power and construction costs.

I would remind you that both costs and wages in the U.S.A. are between two and a half and three times what they are here.

For terrace housing—what they call "row housing"—the average cost of construction was taken as 10 dollars (71s. 6d.) per square foot. For single family detached houses and three-floor flats, which the Americans call "walk-ups," the figure taken was 78s. 6d. per square foot. For six-floor flats with lifts the figure was 92s. 9d. (13 dollars) upwards. The cheapest private or speculative building which we could compare with those figures appeared to be those put up by an extraordinary firm called Levett Brothers, who were building houses in Nassau County, Long Island, at just under 9 dollars (63s. 6d.) per square foot: but, as their 800-square foot houses, on which this cost was estimated, contained an unfinished attic, which the tenant could at his leisure turn into two rooms, the cost may have been somewhat lower than that.

The purchase price of these Levett houses two years ago was as low as £2,800 (8,000 dollars), but that of the single family house in the New Town was about £3,500 (10,000 dollars) in 1950. Even if, therefore, a worker is prepared to pay a quarter of his income in rent, on the ground that he has very little travelling to do in a New Town and has very pleasant surroundings, he must still earn about 2,000 dollars (£714) a year in order to do so.

This ratio of residential cost to family income, which in the Harvard studies was about 24 per cent., is not so very different in this country. Construction costs, as represented by some samples which I have taken of contracts actually let in the English New Towns in 1950—that is, before the recent smaller increases in building costs—work out as follows:

2-bedroom terrace houses, 860 sq. ft., about 29s. 6d. per sq. ft.

3-bedroom semi-detached houses, about 1,070 sq. ft., contracts varying between 26s. 6d. and 32s. 6d. per sq. ft.

3-floor flats, 35s. 4d. per sq. ft.

Multi-storey flats with lifts, 47s. 6d. per sq. ft. and upwards.

Taking development costs at about £2,400 to £2,750 per acre, and making allowances for present increases, the purchase price of a comparatively cheap dwelling in a new town would be about £1,700. When allowance is made for the fact that nearly all the houses are new and subject to the Rent Restriction Acts, I think that it is very doubtful whether a New Town Corporation could afford to let even these small houses at less than about

22s. 6d. a week, and that is exclusive of rates, which may add anything from 7s. to 11s. a week. On a family income of £6 a week, this represents 23 per cent. of the income for rent alone.

Even with the subsidies, the gap between residential costs and rent-paying capacity is of about the same order as in the U.S.A., and here also the lowest-paid workers cannot aspire to a new house in a New Town unless in fact some administrative arrangement is made whereby they can secure one.

I think that planners must know what they have to do before they start designing. An architect tends to rely on the capacity of his client to pay for the building which he has commissioned, but the planner has to take a hand in the programme itself, and, if he is faced with a gap between construction costs and income from rents, he may find that he becomes deeply involved in the bridging of it.

It seems clear that for New Towns in America as well as in Britain the most important tasks are these. First, the maintenance and improvement of standards of planning and layout, which I think is a social as well as a technical task, and which is absolutely necessary to promote the New Town at all. Secondly, and at the same time, an urgent reduction in housing costs and thus in house rents. This may look like a contradiction in terms, but I believe that it is not, and I should like to explain why I think so.

It is usually the designers—the architects, the landscape architects and the engineers—who start movements to raise living standards and improve environments—for that is in fact what a New Town does. Perhaps they are trained to see things as they might be rather than things as they are. Have you ever noticed what miserable kitchens architects' wives have to put up with, while absolute dreams are put down in the drawing office next door? But with economists on each side of the Atlantic saying that costs must be reduced and capital expenditure curtailed the architects become really ingenious, and they undertake to design new and better environments at no greater cost.

Somehow or other the creative impulse, which I think is shared secretly by most people who are worth anything, bursts out in one direction or another. A recent example is Lionel Brett's little house at Hatfield, three bedrooms, 850 square feet and every foot useful, rent 24s. a week excluding rates. Thousands of women have been visiting it in the last ten days.

If we assume that ways will be found to build cheaper and smaller houses, but not necessarily with smaller rooms, the next question is whether other standards in the New Town can be kept high, because only moderately cheap rents, without marked advance in other directions, will not make New Towns worth building. Here again the Harvard studies are illuminating. They found that certain fabricating and processing industries, scientific research institutions, insurance companies, clerical offices and so on could be induced to consider New Town locations, and they were likely to provide in the early days the slightly higher earning capacity which a New Town needs to get things going. Their average level of wages was slightly higher than might afterwards be the case. I think that that theory is also held here, but the practical results so far have not been extremely promising.

Next comes the very interesting subject of mobility. Here I think that there is an enormous difference between the two countries. Right at the core of the American philosophy of life, as you all know, is the conviction that there is always something better round the corner, and this reduces their attachment to a particular town, a particular house or even a particular garden very considerably. Even with a shortage of houses, in most States it is common for a worker to change his house when he changes his job, particularly if this is accompanied by an increase in salary, as it often is. The mobility of labour and the turnover of houses are therefore both increased.

Much more obvious is the mobility due to the private automobile, which leads to an entirely different pattern of layout both for the housing project and the New Town studies. Densities are lower, because a car needs as much space as a person, and sometimes more. Houses and shops are much more loosely strung out than with us. This dependence on the automobile, which is used for everything from a holiday in Canada to a trip to the drug store, and for every purpose, from a play space for the children to an occasional overcoat, makes an enormous difference to all the facets of planning.

One of the most interesting effects of this "automobility," to borrow their frightful word, is on shopping habits. Two new phenomena have made their appearance in the U.S.A. The first is the supermarket. This is a development of the "help yourself" grocery store, which is magnified to ever-growing proportions. The customer on entering takes a wire basket on wheels, and into it throws branded goods from the shelves as he passes down the aisle or stops at one of the few counters actually served by human attendants, such as the meat counter. He tacks gaily from side to side, and my experience is that it needs real will-power to prevent oneself from buying far more things than one needs. With a final flick at the end for cigarettes and matches, he then enters one of a number of bottleneck outlets, at each of which sits a cashier. All the purchases go into a huge paper bag, and if you are lucky and alone an attendant will carry your purchases to your car and you drive away. The complete operation may take as little as three minutes.

The second phenomenon is the so-called regional shopping centre. The best form of this is a planned concentration of the outlying branches of the big central stores from the big towns in some spacious suburban area, of high amenity value.

A less desirable version of the supermarket and out of town shopping centre is the purely vehicular bazaar beside a main highway. Some of these have enormous sky-signs, "Stop and Shop."

Other social and anti-social activities are influenced in a similar way. Churches and fraternity houses share a common parking place; the town hall and the main hall of the high school are combined for similar reasons. Golf clubs, residential hotels and so on can be much further away from the town centre than is common with us, and, more important still, the factories and works can function quite comfortably outside the pedestrian circuit of the New Town.

On the whole, this mobility is of advantage to the organic decentralised community of a great metropolitan centre at any rate. It brings its own problems, the most tangled for the planner being those of parking and garaging the enormous number of vehicles. The advantages depend on the layout and low density. The chief advantage is probably the sheer contrast with the conditions of the congested central area. Here extreme mobility leads quite often to paralysis and always to a wasteful expenditure of nervous energy.

(Here Professor Holford showed a number of slides. These included a plan of Radburn.)

A much more important development was Radburn, which was a milestone in the progress of the New Town idea in America and carried on the neighbourhood principle of Clarence Stein and Henry Wright at Sunnyside Gardens. Vehicle circulation and pedestrian circulation are completely separate. A typical super-block is surrounded by a main road with entrances for cars at certain points which do not penetrate far, and at the back of the houses are pedestrian paths leading to the primary school and an open green. This was an extremely thoughtful and interesting experiment, and it is a great pity that the slump in the 1930s caused the failure of this town. It is now being built up again, because the neighbouring area is developing fast.

I should like to show you some views of Greenbelt. The first is an aerial view showing the initial development for about 3,000 people in a great crescent. A further development, taking the population to 7,000, is in some five super-blocks. The great internal play spaces and recreation areas are linked with the town centre, the swimming bath, the primary school and so on and the lake by pedestrian ways with "under passes" which take the footpaths under the road. The vehicles enter the housing areas by what are called "garage courts," and children can walk about the town in comparative safety.

Now that this new scare has hit America it is actually proposed to put up eight office buildings, to hold 50,000 people each, outside Washington, without any living accommodation, the idea being that if Washington is hit the essential administrative workers will be able to carry on. They have failed to realise, because they have not thought about it, that most of the workers would have to go through Washington to get to their office. The whole scheme is completely mad.

There are many interesting things in the Greenbelt towns. There are the "underpasses" for pedestrians, taking them under the motor roads. It has been found necessary to plant prickly bushes on the banks, to prevent the children climbing up and crossing the road in the ordinary way. There are very adventurous children's playgrounds, and a great many of them, some of them set among woods. The Greenbelt towns were built to provide complete towns, but the scheme failed because they did not have any industries, and the residents had to commute to Washington and other places to get to their work. The towns are, however, an illustration of the safety principle and the social principle in town planning. There is an attempt to keep the workaday side and the recreational side separate.

(Other slides were shown of Greenbrook (never built), Greenhills in Ohio, and Greendale in Wisconsin; Baldwin Hills Village near Los Angeles.)

Later on Professor Holford referred to the development at Parkchester, a residential development in the Bronx district of New York in what was until a few years ago the traditional method of housing at a very high density families of the upper-lower and lower-middle income levels in New York. This kind of building is terrifying to see. It is very well built, the utilities are there, the living accommodation is very well heated—over-heated, in fact—with every possible convenience, but your soul sickens when you go into the place. There is the feeling that people have ceased to be human beings and have become comfort-loving automata inhabiting cells and occasionally going into the country to recover a little of their humanity. That kind of development, however, is very common in New York.

By way of contrast, there is the extraordinarily interesting development known as Fresh Meadows. The Metropolitan

Life Assurance Company believed in giving people what they asked for at the moment. People wanted apartments in New York, in the Bronx, and they got them. In Fresh Meadows, however, the firm of Voorhees, Walker, Foley & Smith—and chiefly Smith—persuaded the New York Life Assurance Company to build not a speculation but an investment, and I think that this has some importance for the future of the New Towns in America. In Queens they bought up an area of about 174 acres which used to be the Fresh Meadows Club, a golf club or country club, with magnificent trees on the site, and they built accommodation for 11,000 people in about 3,000 apartments. They also built a very fine theatre, large shops, a "professional building" for doctors, dentists and so on, four very interesting garages to hold about 320 cars at a time each, and a nursery centre which enchanted me until I found that in every single room there was a one-way-vision screen, by which without yourself being seen by them you could watch the children. That gave me a psychological horror feeling. There are laundries in the basements of every third or fourth block. The general building design is to have two 13-floor blocks and the rest with two or three floors. The planning is extremely skilful; only one road goes straight through, and this is interrupted by ovals. There is a large open space and a real oak grove, with forty acres of existing trees.

The rents are higher than a New Town could afford, being between 50 and 72 dollars a month, but that includes everything. Of all the developments which I have seen round New York, where, of course, the densities have to be higher than in a completely new town, Fresh Meadows struck me as being by far the most competently designed. Lewis Mumford said that it was the answer to their housing problem, in that, although it is thoroughly American in its feeling, the inside of the blocks has an extremely neighbourly air, and the density is low enough to enable you to do things; you can be alone if you want to go off into the woods, and you are not continually within sound of traffic.

Vote of Thanks and Discussion

Dame EVELYN SHARP, F.R.S.A. (Deputy Secretary, Ministry of Local Government and Planning): proposed a vote of thanks.

Sir PATRICK ABERCROMBIE, who seconded the vote of thanks, said: I have found it very interesting to listen to this talk. I paid a somewhat American type of visit to the United States last spring, and was very interested to see a number of the New Towns there.

This work in the U.S.A. is of first-rate importance to us to-day. In Fresh Meadows, and also in Greenbelt, outside Washington, I was impressed by the magnificence of the shopping centres.

We can learn a great deal from what the Americans are doing in that respect. They are making use of the motor car to improve the facilities of these new towns, and something of that sort might be done in this country on a smaller scale. I was very interested to study the shopping centre at Stevenage, where they are adopting a method of this sort. The chief architect there has called in Clarence Stein, and also Gordon Stepherson, who learnt his planning at the M.I.T., and they are planning the shopping centre, which will be something quite new in this country. Whether the number of motor cars here is sufficient to sustain it remains to be seen. It is completely pedestrian when you get inside it, and when I looked at my Plymouth plan again I thought I had made a fool of myself, because I had let motor cars in, and when that happens the buses want to come in, and then there is a demand for through roads.

We can learn a great deal by visiting other countries and studying their planning of new towns. But they struck me as laying too much emphasis on saving the children from crossing roads used by motor cars. Clarence Stein, when showing me these under-paths, said "Let us watch and see whether the children use them," and then he said "Hurrah ! they have !" Not a single motor car was going along the road, and they might just as well have crossed the road.

In the 1930s the Americans had so much money available that they could make these under-paths and over-passes in a way that we are not able to do, and they may have overdone it, because each of these towns is in a sense a precinct, cut off from the main traffic stream. At present the Great North Road goes through Stevenage, but ultimately it is going to be diverted. My small granddaughter, who is under three years of age, is not at all afraid of crossing the village street where I live, and that is a precinct village.

Mr. Dalton said that his Ministry now controls a great deal of what it is necessary to do in the way of control of development, but one thing which it does not control is the location of industry. The location of industry is the background of planning, and we have suffered from having two Presidents of the Board of Trade, Sir Stafford Cripps and Mr. Wilson, who were not interested in planning at all; I would call them anti-planners. They were interested in the prosperity of the country. We now have a new President of the Board of Trade who is a nephew of Harold Shawcross, who was Chairman of the Housing and Town Planning Council. I hope that Sir Hartley Shawcross will help us in diverting some industry to these New Towns.

Mr. Gibberd said to me the other day "If only industrialists were allowed to do what they want to do, we should have all the industry in Harlow that we want." I hope that the new President of the Board of Trade will help us to get a proper balance in our New Towns and get industry and housing going side by side. If that happens the New Towns will go ahead rapidly and we can make use of all the good ideas that Professor Holford has put before us.

A.B.S. Annual General Meeting

The Annual General Meeting of the Architects' Benevolent Society was held on May 2, 1951, in the rooms of the Royal Institute of British Architects. In November of 1950, the Society completed one hundred years of work for the relief of architects and their widows and orphans, and since 1850 over £130,000 has been distributed to those in need.

The Council considered the great need that is apparent for homes for elderly people with straitened means and a special centenary appeal was issued to raise funds for the provision of homes for beneficiaries.

One hundred and twelve cases were helped during the year—ten more than in 1949—twenty-four of which were architects or architects' assistants, sixty-eight widows, and twenty orphans.

Mr. A. Graham Henderson, A.R.S.A., President of the Royal Institute of British Architects, was re-elected President. Mr. H. S. Goodhart-Rendel and Mr. Charles Woodward were re-elected Honorary Treasurer and Honorary Secretary.

THE SEARCH GOES ON

THE third meeting of the architectural teachers' conference, London area, was held at the R.I.B.A. on Saturday April 28, Professor Richardson in the chair.

The topics dealt with this time were "The Approach to the Teaching of History and Theory and of Science and Structural Mechanics."

It will be nearly impossible to do justice to the papers, especially those on History in this brief report, but far less shall I be able to do justice to the chairman in the person of Prof. Richardson whose contributions exceeded the papers by far in time so that one felt it was Professor Richardson versus the rest. As this is one of the "base" periodicals I will say no more and let the Chairman open the meeting, almost on time. "History and Science, Man in Nature Portent, The Beginning of Sculpture, and a Box of Science. To depart from these Laws is perversion. But the continuity of Architecture is assured. Britain has a great future, in spite of the "festering" at the moment ! No nation shows so much talent to do the wrong things first and then invent enough to put these right ! . . ."

After this, Mr. J. E. Moore, Northern Poly, read the first paper on the "Place and Purpose of History and Theory in the Curriculum."

He began by stressing whichever way history was taught, from the archaeological point of view at one end to the Marxist on the other the student will derive value from it. The point was that he should derive the greatest possible value. This is not possible without a purpose, and there can be only one, to enable the student to become a better designer of contemporary buildings.

We should not only stress the various conditions, social, structural, climatic and accidents of history which affected the appearance of buildings, we should be rather more concerned with the beauty arising out of this at the hands of people who were not just tools in the hands of fate but who consciously imposed on their buildings an aesthetic meaning, who were not merely influenced by the factors mentioned, but who were masters of them, often taking advantage of new materials and methods to add to their language of beauty. Mr. Moore continued, that the history of buildings and aesthetics were inseparable. To the student history must become a subject meaning more than just something one has to pass in an examination. If more emphasis were given to the aesthetic achievements of the past the connection between lectures and studio work will be ever present in the student's mind. When reviewing the History and Theory syllabus with this aim before us we may have a better idea of what aspects of each period should be emphasised and which might even be eliminated. One may take from each period whatever that period may have to teach us about designing to-day, may it be structure in one, the influence of social form on plan in another or ornament in a third.

Mr. Moore concluded, that while teaching history from a more aesthetic point of view, we might look at "Theory" more from an historic one. And this we should attempt as impartially as possible because "After all, who are we to say how tomorrow's buildings are to be designed ? We are teachers, not prophets."

Prof. Richardson replied from the Chair that we, the teachers, were pioneers of a new Renaissance and enlarged greatly on the "perversions." "We have done with perversions !") (With an eye on the South Bank !).

The next paper was read by Mr. Michael D. Beasley, also from Northern Poly.

He grouped the approaches to history into three categories: (1) the archaeological catalogue; (2) the analysis of structure; (3) the sociological approach. The first, he stated, is important but had grown out of all proportions. The second should preferably be studied through contact with actual buildings. An experience of architecture was the essential thing. Visits will leave an impression even on the dullest mind. He felt that we might be over-emphasising the architecture of Greece, Rome, Italy and France. Our students will build in England for English people, next to English architecture. In Stockholm, he quoted, 56 hours were given to general history and the same amount to Swedish architecture !

History should be taught backwards. After a general survey one could for instance see Sens Cathedral through Canterbury, Rheims through Westminster, Scamozzi and Palladio through Inigo Jones and Kent, and Serlio and Sansovino through Wren.

Social history tended to be overstressed and the buildings should be seen more as live architecture in their contemporary setting. Studies should include designing next to works of the past. Architects are are often too barbarian.

The third paper by Mr. R. H. Franks, of Northern Poly, followed after a further witty dissertation from the chair.

He emphasised the importance of History in these days of Austerity. He reminded us that our students were just five years of age in 1939, products of Austerity. They will have to learn how to see our period in perspective through history. For them it will be time enough to learn how to eke out the rations when in an office. Otherwise our students will be under the impression that the building requirements of mankind consisted of a Concert Hall, Schools, Flats and the Housing Manual.

History, he emphasised, must begin at secondary school level. Once again he raised the now so familiar bogy of school education which is utterly devoid of any cultural requirements.

Our students no longer came from the stately homes where the study of the arts was fostered. They came from semi-detached houses, flats or rooms, they were accustomed to sit round the slab-tiled fireplace with the oval mirror over, slightly tilted forward over its long horizontal axis. There are no books on architecture or on art. The topic of conversation may conceivably be music, rarely art, never architecture with the possible exception of references to the housing shortage. As to school education, Mr. Franks admitted that we had progressed since Dickens' time, the drainage systems of nursery schools were nearing perfection, but at a later age the psychological approach to teaching lagged sadly behind. The master of history knows nothing of art and less of aesthetics, but a lot of the meeting on the Field of the Cloth of Gold. Classic literature consisted of difficult grammatical construction. In mathematics our students had gone far beyond the differential calculus, but found it hard to believe that a purlin had to be supported.

It can be assumed that the raw student, the normal product of his time, has no artistic background, no natural taste. On the credit side his brain is highly exercised, he is intelligent and has an open mind.

Mr. Franks then made some points about keeping the student interested, to flatter him by alluding to facts he may remember from school, "as you know . . ." and finally to guide his reading. Not to read history books, they serve only as reference books, but historical studies which are often in themselves works of literary art and so enabling him to appreciate the vast heritage that lies behind him so that the unbuilt works that lie before him will be no less works of art.

Professor Richardson recommended rather urgently that these papers ought to be read before the senior members of the R.I.B.A. After a vote of thanks, adjournment for coffee.

After a well deserved break the chairman added to his last remark the request that these papers should be published in the R.I.B.A. Journal before they sank to one of the "base" periodicals. As to history, this appears as the "theory of design." Teaching should be done by drawing. Banister Fletcher was a bore to the students, if only the Royal Academy would show architects' original sketches instead of those highly polished pictures ! Here would be the conception ! Like the mediaeval architect who often designed in elevation, the conception came first instead of all that bunk on functionalism ! (How right the Professor is, if only the "conception" were understood as something more than an elevational one !) While at the R.A., he continued; "Don't despise the R.A., they represent the work of the Nation They retain Art without descending to the level of a riverside show!"

After this we heard a lot about a wonderful set of chessmen, once the property of Mary Queen of Scots while Queen of France, which the Professor had rescued from being shipped to U.S.A., and that there was no originality only "infinite variation," gradual change, originality, no; perversity, yes !

What little time was left for discussion did not materially contribute to the already stated, and the morning session concluded with the Chairman's blaming overcrowding for all our troubles. "Maggots, maggotry all, who are we to speculate on taste . . ."

With this the meeting adjourned for lunch after paying the half-crown.

The afternoon session was devoted to the approach to Science and Structural Mechanics and was opened by a paper by Mr. E. M. Rice, of Hammersmith School.

An almost too ample Chinese lunch had made me too late for the Chairman's introduction.

Mr. Rice made the point that there was a dangerous tendency to overlook the function of the artist. It was a fallacy to believe in analysis only. Syllabuses are easily overloaded and the architect may learn a lot about other people's jobs and little about his own. One-sixth of the time available should be the maximum for Science. Let students grow bigger, see the stars and not grabble in the gutter, this is a pursuit for little men, technicians.

Professor Richarson handed out bouquet after bouquet to the successive lecturers and this was no exception. Then followed the next speaker, Mr. L. R. Sterry who termed himself a barbarian in these surroundings, a man with a mere science degree.

His subsequent remarks however were by no means barbarian. As to the prevocational training, all he asked for was an ability for clear thinking, clear expression and familiarity with a few basic principles. He illustrated this by a question that was included in one of the A.A. entrance tests: "Why do little girls with red hair wear green jumpers ?" All he wanted were eyes to see. Otherwise the science lecturer should work in close conjunction with the studio master and similarly to History suggested a continuation of the science course into the fourth and fifth year. The student should frequently be able to handle materials and the Science laboratory should be an extension of the studio.

The Chairman enumerated all the many subjects the poor architect has to know and so to the next paper.

The speaker was Mr. Williams, a structural engineer, engaged on teaching structural mechanics to architectural students. This subject is always treated as something so remote from architects that it needs particularly delicate handling. However, Mr. Williams' points relieved much of this fear. He does not believe in the "architect engineer," nor in any graphic method that can not be easily proved and demonstrated. Briefly the course can be divided into the "punishing" forces and the defending ones. This usually works well until the fourth year when one meets with some truculence, when everything must be supported on one column only, all staircases must be cantilevered and the simplest beams turn into a highly statistically indetermined frame. But students should learn to co-operate with the engineer, also mix more freely with engineering students, and vice versa. But he would defy anybody who could give a neat explanation to architectural students of the moment of inertia and the radius of gyration.

Prof. Richardson wished he had heard that talk before. It should be rammed down the throats of the science committee (not verbatim) because this is one of the bodies at the R.I.B.A. that wants overhauling more than anything, those "little men," those grabblers in the gutter !

Coffee after votes of thanks, and the remaining discussion started with an historic summary by the Professor showing that even Telford did not use calculations, their use being very recent in this country and he quoted Thomas Hardy as saying that architecture had taught him to write, to put one thing on top of another; this was building. (Is it not just this more than anything where we differ from the Professor ?)

Rather an irrelevant discussion ensued involving this Journal about an article in which examiners were quoted as having asked candidates at which school they had been trained. It was Mr. Haynes, I believe, who replied that this matter had been cleared up by a subsequent letter.

Mr. Arthur Korn made a plea for the Bau-Haus approach which was not too gracefully received from the chair and the meeting ended with a vote of thanks by Mrs. Parish, the architect wife of one of our most enlightened builders. She recalled the pleasure of having learned one's history from such a master as the Professor and the delight in listening to his criticisms of students' drawings—the other students' drawings !

Drawings dealing with historic research and theory were displayed in the lobby. They had come from Brixton, Hammersmith, Northern Poly and S.W. Essex. They all had one thing in common: cross-sections through time. An early basilica at one end of the sheet and Frank Lloyd Wright's church for (is it Wisconsin?) on the other. There were admirably presented "Analysis sheets" showing for instance all the factors that have led to the fine conception of the Malmo Theatre. The proof that a Florentine cornice was structurally safe by application of the laws of stability of masonry seemed on the other hand somewhat pedantic.

I would like to conclude my report on this note: I believe that teachers of architecture have to be prophets otherwise teaching becomes merely a conveying of facts. We must be inspired as we expect our students to be. But the artist's inspiration is invariably a glimpse of the future, or perhaps only a heightened awareness of the present. Perhaps a sort of short cut and, who knows, what with our still limited awareness we call art to-day may be science to-morrow.

Finally, should Mr. Williams read these lines, we at Leicester have found a neat explanation of the moment of inertia because I believe that it is the basis of all structural form !

H. W. ROSENTHAL,
Leicester.

CURRENT NOTES ON PLANNING BY "E. & O. E."

Hostels. II.

Sections

The planning of small bedroom units over large common rooms may control the form of the sections of multi-storeyed hostels or involve the designer in facing a certain amount of heavy structural elements. In Fig. 2, diagram A shows that if bedrooms are planned on one side only of the corridors on the upper floors, the common rooms, in order to be reasonably wide, must be constructed to carry one of the external walls of the superstructure. If bedrooms are on both sides of the upper part of the wing (Diagram B) the common rooms on the ground floor may be found to be wide enough. Under certain circumstances and with some types of hostel it may be a better plan to place the common rooms in a separate block and to standardize the bedroom accommodation throughout the residential wings or blocks including the ground floors, a method which, if site space permits, may lead, in addition, to some considerable economies in building costs.

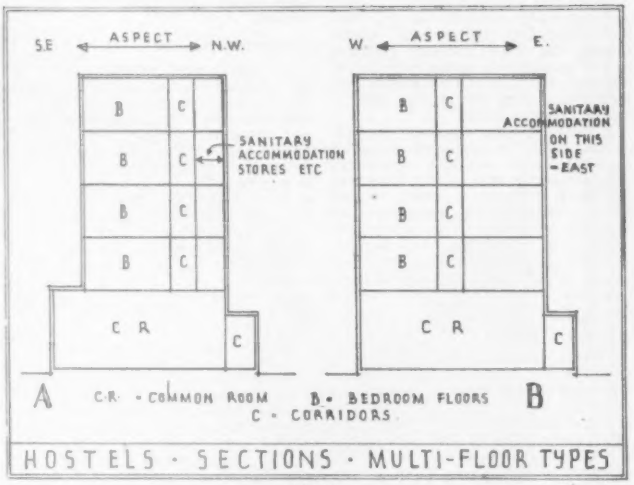


Fig. 2

Vertical Circulations, etc.

As in flats, approaches to the various levels of accommodation can be in small units (as in diagram A of Fig. 3) where a staircase serves only two or four apartments in each floor, or a large number of units can obtain access from corridors communicating with staircases or lifts.

In general principle, the minimum distance of any sleeping or similar accommodation from a staircase and the need for the provision of alternative escape in the event of fire, follows the requirements of flats (see "Planning" 6th Ed. 1950). Fig. 3 shows various types of methods of approach and escape and indicates the relation of sanitary accommodation to stairs and bedrooms.

Entrance Halls

These act as the main distributive centres of the hostels, from which main circulations, both vertical and horizontal, should lead to all parts of the building. Halls should not be cramped as they are likely to serve also as general waiting space; it is important also that space is ample enough to provide for the use of the common rooms for receptions or meetings, etc. The administrative office and/or inquiry office, of the building should open directly from the hall and it is desirable that any visitor's rooms which may be provided should also lead directly from this central space. The entrance from the street should be provided with a draught lobby to keep the hall at a comfortable temperature. It is desirable that halls have adequate daylight although this may not always be possible. Ample wall-space is needed for notice boards.

It is normally undesirable in the interests of simple control to have secondary public entrances to hostels. In some special types, however, such as those for workers who return to the hostel in dirty clothes and boots, may need a secondary entrance leading directly to changing or boot rooms, before passing to the main rooms of the building.

Provision should be made in or near the entrance hall for telephone boxes, for the use of residents.

Offices

Hostels are generally in the charge of a manager, often called a warden or bursar (or, in women's hostels, a matron), for whom office accommodation is needed in a central position reached easily by residents or visitors and from which general supervision of the main entrance is easy. In some hostels, especially those for students,

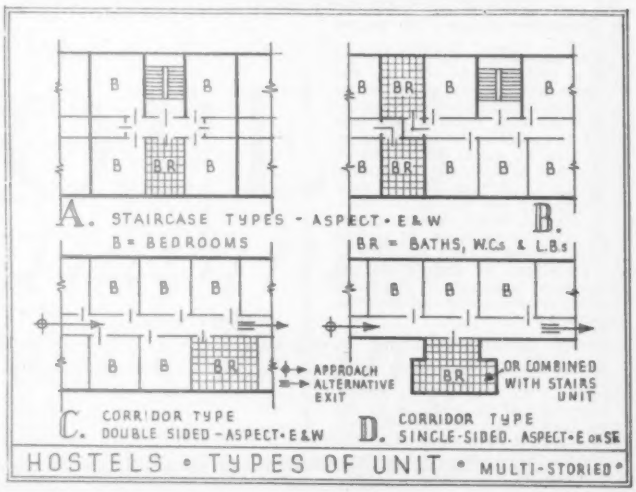

B
BR
A. STAIRCASE TYPES - ASPECT - E & W
B.
B = BEDROOMS
BR = BATHS, W.Cs & L.Bs
APPROACH
ALTERNATIVE EXIT
OR COMBINED WITH STAIRS UNIT
C. CORRIDOR TYPE
DOUBLE SIDED - ASPECT - E & W
D. CORRIDOR TYPE
SINGLE-SIDED. ASPECT - E OR SE
HOSTELS · TYPES OF UNIT · MULTI-STORIED ·

Fig. 3

the warden may have a separate suite and the general office is used only by a clerical staff. In some large hostels, a separate reception office and inquiry counter may be needed, as in an hotel. The office or the inquiry counter, when provided, should be at one side of the entrance hall and have either a counter or hatch easily accessible. Some hostels have short-stay visitors and consequently the whole entrance planning can be treated very similarly to that of an hotel. In many hotels the office also serves as a shop for articles such as stamps, cigarettes, etc.

In small hostels, especially in types such as those for old people, the office serves also as the warden's or matron's sitting-room; in such cases a floor area of at least 120 sq. ft. is needed. Room keys, in those hostels where they are regularly used, and letters are usually handled at the office. Convenient space is required for desks, files and usually a safe and when the office is used for the dual purpose, normal sitting-room furniture.

Visitor's Room

This is usually approached directly from the entrance hall and furnished as a normal sitting-room. It is generally used for the reception of resident's guests of the opposite sex or as a room where visitors may be taken for private and quiet conversation. It is especially necessary where hostels provide only bedroom and dining room accommodation.

Cloaks

Some cloaks' space conveniently near the entrance and the dining room is needed in most hostels where the residents may leave out-door clothing without the necessity of going to their bedrooms. In hostels for children and in those where working clothing is always changed on entering the building cloakrooms may also be needed near secondary entrances. It should be noted also that in hostels for students cloak rooms may be required also to act as changing rooms for games purposes and some bathroom or shower accommodation adjoining may become necessary.

In the normal type of cloakroom it is usual to provide racks with hat and coat pegs and umbrella stands but in some more elaborate coat-hanger equipment is installed; hat and coat pegs should be placed in 12 in. centres on single rows for adults and at 10 in. centres for adolescents; cloakroom equipment for children should follow school practice (see Schools in "Planning," 6th Ed. 1950). Smaller cloakrooms may also be needed in association with visitors' rooms, especially to cater for visitors of the opposite sex and for social occasions; in most cases these should have sanitary accommodation attached.

Sanitary Accommodation, General Considerations

A part of the total sanitary accommodation should be planned on the ground floor or in a basement for daytime use and in connection with common-rooms. In some types such as those for children, old people and common lodging-houses this is likely to be the greater part of the total accommodation. When bed-sitting rooms reduce the common-room areas a larger part of the total sanitary accommodation should be distributed among the bedroom floors. In hostels for young children the ground floor accommodation should be planned in close proximity to the day rooms as in nursery schools.

Common-Rooms

All hostels need common rooms for day and/or evening use by residents, but the areas and types may vary considerably. In common lodging-houses and those for the very low income-groups a combined lounge-dining room for each sex may be all that is provided; it may be based on an area of as little as 10 sq. ft. per bed. In normal hostels for lower and middle income-groups, a total area of common room, including dining room, will usually amount to 20 sq. ft. per bed as a minimum. If it is desired to seat all the residents for meals at the same time considerably more may be required. It can be assumed that a proportion of the residents will be out at any one time, except in hostels for old people and children. This may well affect the total space for these communal rooms. In general smaller hostels usually need more common-room space per bed in comparison with larger ones.

The common room spaces, apart from dining rooms, should be divided between a number of rooms for particular purposes such as lounges, quiet rooms, and games rooms, the demand for which varies according to the type of resident. Common rooms are normally planned on the ground floor, although lower ground floors and even basements may be used for some purposes such as games rooms. In hostels for old people all rooms should be on the same level to avoid steps and, similarly in children's hostels, supervision is simplified if all the rooms are planned together in a group on one level. Common rooms should have plan shapes suitable for the various uses, well-lighted, have pleasant aspects and outlooks wherever this is possible.

It is not possible to give a proportional distribution of common room space between various uses, as this varies so greatly in response to the situation of site, the type of hostel and the ages and occupations of the residents. (See Fig. 4.)

Lounges

Several smaller rooms are more useful and better appreciated by the users than one large room. Such rooms lend themselves to more homely and less institutional treatment. It should, however, be possible to throw two or more rooms together to provide for formal or larger social occasions. (See Fig. 4.) Common rooms can, therefore, be planned *en suite* with advantage but every effort should be made to check the passage of noise between them when in normal use, either by acoustic treatment or by initial planning. The rooms should be varied in shape and size and suitable for furnishing with normal domestic types of easy chairs and occasional tables arranged in groups. A piano is usually required in one room and provision should be made for radio (with different programmes in different rooms) although in some hostels radio is confined to a special room. Some facilities should be provided near the lounges for the storage of part of the furniture when it is required to clear the rooms for dances, receptions, etc.

Quiet Rooms

At least one room should be set aside for quiet reading and writing, except perhaps in hostels with bed-sitting rooms or study-bedrooms. The position of quiet rooms should ensure the maximum cut-off from other common rooms and particularly any which may be the source of special noise, such as games rooms. Good day and artifi-

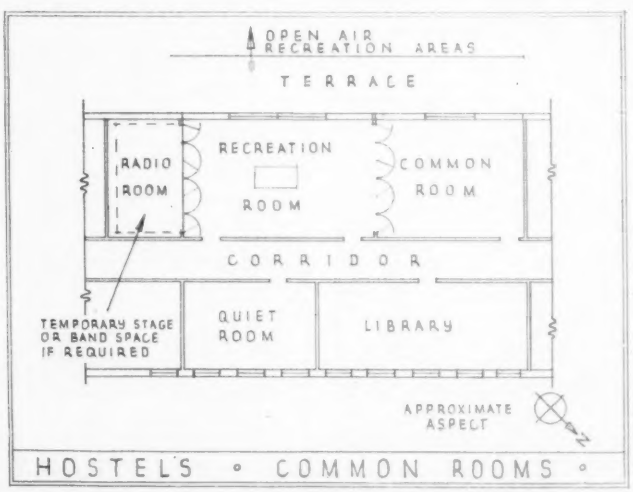


Fig. 4

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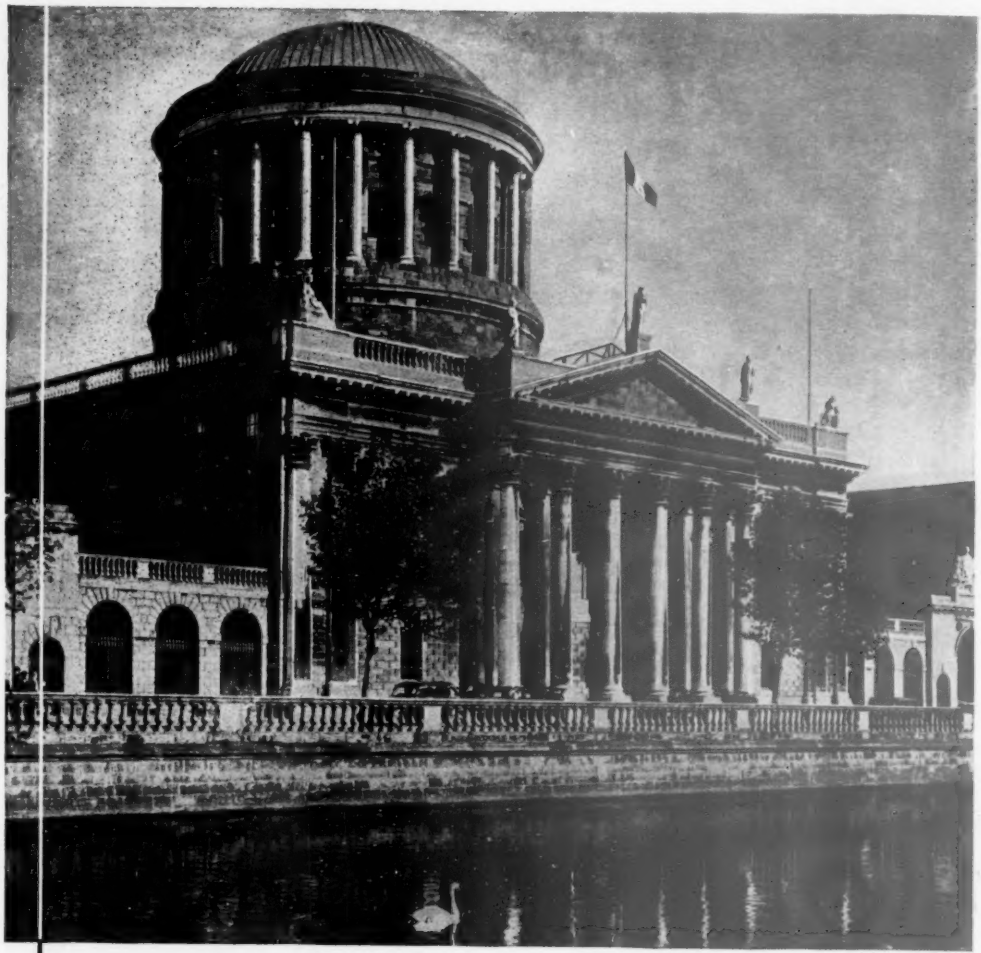

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cial lighting is essential. The rooms are usually furnished with easy chairs and writing tables with suitable chairs. (See Fig. 4 and "Planning," 6th Ed. (1050), section "Hotels").

Other Common Room Facilities

Some hostels provide library facilities in the quiet room or provide for the loan of books from the office. In some hostels and especially those attached to teaching establishments, a properly equipped library may be needed for the storage of books and for study purposes; quite large areas may be needed and the plan should follow the lines given in "Planning," 6th Ed. (1950) in the sections on "Schools" and "Libraries."

In lower income-group hostels for women a sewing-room is often provided and equipped with facilities such as a cutting-out table, a pressing table and sewing machines, the latter often being hired by the hour.

Many hostels provide music practice-rooms. These can be small rooms, about 9 ft. by 6 ft.; they must be well insulated, by acoustic materials or planned isolation, against transmission of sound to other parts of the building.

Games Rooms

In hostels for older types of residents rooms may be needed for cards, chess and similar games; in those for younger people rooms for more strenuous games, such as table tennis, darts and even squash rackets, are likely to be required. Billiard rooms are sometimes provided. In some large hostels facilities for swimming and physical training are provided. The shapes and areas of the rooms provided must be related to the special uses. In most cases games rooms should be regarded as sources of noise, a factor which should be considered very carefully in planning locations, so as to create a minimum of disturbance to all other parts of the hostel.

Games rooms are sometimes used for dances and practice dances and should have a flooring material suitable for this use. Except where facilities such as a gymnasium or swimming pool are provided, it is often convenient to plan one large room for use for a variety of games and this method may have the advantage of providing one quite large meeting room in which a small permanent or temporary stage may be planned.

Food Service

Facilities for the service of food vary greatly in hostels. Many organizations do not provide mid-day meals for the residents but only for the staff, except at week-ends. Some types of hostel, however, such as those for old people, children and those attached to educational organizations have to provide for all meals, including afternoon tea. Certain types, while not providing mid-day meals at the hostels, have to be prepared to issue packed lunches. Many hostels also provide meals spread over very long periods of the day as residents leave for or arrive from work at very varied times of both day and night.

Except in higher-rental types and those for old people and children, self-service is becoming general owing to the cost of and difficulty of obtaining suitable waiting staff; this factor has considerable bearing on the planning of kitchens and serveries as it is then virtually essential that they are planned on the same floor level as the dining rooms or canteens. The type of meal to be served also greatly affects kitchen layout, but generally hostels have set meals with only a small choice of dishes which simplifies the amount of room and equipment necessary. In scholastic types of hostels there is an increasing tendency to provide all meals in a central dining room, or college hall, although, in some cases, provision is made for students to take dinner and sometimes lunch in a main dining hall and to provide other light meals or refreshments in their rooms; this arrangement necessitates more elaborate pantries and storage facilities associated with the living accommodation.

Dining Rooms

Dining rooms in some types of hostel such as those for students, old people and children may require to seat the whole of the residents at one sitting. In other types meals are spread over longer periods so that the dining room may be smaller as it is used in relays. Generally a floor area of at least 10 sq. ft. per person is necessary to permit table space and adequate gangways. This area has to be varied according to the type of table adopted as it will only be adequate if long tables seating 8 or 10 persons are used. (See the section on "Factories" in "Planning," 6th Ed. (1950)). Tables for two or four persons are generally used in the higher rental types and these will require more space. Detailed information on dining room seating is given in the sections on "Hotels" and "Shops" in "Planning," 6th Ed. (1950). The reader is referred to the same source for detailed information on the requirements for kitchens, cafeteria service, serveries, etc.

Occasional Meals

Since hostels must be considered as the homes of the residents, some facilities for snacks and tea-making are usually required in most types. These may be provided by the normal kitchen and dining-room service in those hostels which find it necessary and possible to provide staff over the long periods involved, but in many hostels this is impossible and alternative arrangements have to be made.

Some hostel organizers require small tea-kitchens or pantries near the common rooms; others, and these are more general, especially when dealing with bed-sititng rooms or study-bedrooms, find that tea pantries are most needed on the bedroom or residential floors. When plans are based on the use of common staircases serving up to about four sets of rooms per floor, as in the so-called "collegiate" type or "halls of residence," one pantry will usually be found sufficient for four storeys (16 rooms). In most other types, however, one pantry per floor is the minimum needed, and it will be found that a single pantry will serve a large number of rooms in hostels of the corridor type, provided adequate space and sufficient equipment is provided. In some schemes cleaners' stores and even a residents' laundry may be combined in one group with the pantry and the whole service unit be placed on an intermediate floor, more or less equidistant from all bedrooms.

The normal equipment in the type of pantry described is two or more gas-boiling rings or electric kettles, a small griller, a sink and draining boards and a series of small ventilated lockers in which each resident may keep china and supplies. Two gas rings will usually suffice for up to 20 persons unless whole meals such as breakfast have to be cooked. Most hostels discourage residents from keeping food, china and similar articles for meals in their bedrooms or sitting rooms.

Staff Meals

Wardens, managers and those having suites of special rooms sometimes have meals served in their own rooms and it is then necessary to plan suitable small service-pantries in association with the rooms or flats in which the meals are taken. It is quite usual, however, for these people to take meals in the common dining room with the residents.

Domestic staff, if resident, are provided with all meals and often non-resident staff have a proportion of their meals at the hostel. It is therefore essential to provide a staff dining room; this should be near the kitchen and servery; it should not also serve as the staff sitting room, which should be a separate provision, especially as some of the staff may be off duty when others are having or serving meals.

(To be continued next week)

LAW REPORT

A claim for damages arising over the building of a garage, with a bedroom above, concluded in the King's Bench Division on May 3.

The Plaintiff was Mr. Stanley Henry Walter Gill, of Priory Crescent, Wembley, and he sued Messrs. Atherton & Brenchley, of Mansfield Street, Portland Place, W., architects and building consultants, alleging negligence.

The case for Mr. Gill was that in 1946, he engaged defendants to prepare plans, specifications, quantities, etc., for the building of the garage, and an additional bedroom above, at the side of his house. This was done and defendants were engaged to supervise the work of the contractors. Mr. Gill complained that the garage, in fact, was useless and would have to be rebuilt.

The defence was a denial of the allegations.

Mr. Justice Jones, giving judgment, said no evidence was called on behalf of defendants. Although they admitted negligence, it was not very bad negligence, but an error of judgment. Defendants were asked to design the garage with a bedroom above. When the work was completed it was found impossible to get the car into the garage because of its position in relation to the drive-in. Mr. Gill was entitled to succeed. He had been put to a great deal of trouble, inconvenience and expense and would be awarded £337 19s. 6d. damages.

Judgment was entered for plaintiff for this amount with costs.

A stay of execution was granted pending consideration of an appeal.

News of the BUILDING INDUSTRY

INTEREST

THE PRESTRESSED CONCRETE DEVELOPMENT GROUP has submitted a memorandum to Government Departments summarizing the many uses to which prestressed concrete can be put on the constructional side of the defence programme.

The memorandum points out the economy of vital materials which can be effected by the use of prestressed concrete, and the resulting saving in transport.

The question of labour is also considered. As the memorandum says, the adoption of factory-made prestressed units reduces the amount of site labour required, and frees highly skilled operatives such as carpenters and bar benders for work elsewhere.

*

THE CEMENT AND CONCRETE ASSOCIATION has organized a Symposium on Prestressed Concrete Continuous and Framed Structures which will be held at the Institution of Structural Engineers on September 24 and 25, 1951.

This date has been arranged so that overseas visitors attending the Building Research Congress may take part. Copies of the programme are available on request.

*

THE NEXT BUILDING TEACHERS' CONFERENCE will be held in November, to coincide with the Building Exhibition at Olympia, if present arrangements are successful.

Efforts are being made to arrange a meeting in the morning to discuss the topic—"What the Building Industry expects from the Technical College." It is hoped that leading personalities from both sides of industry will state what they really think the technical colleges should be doing. In the open discussion the members of the conference will have an opportunity of giving their point of view.

After the installation of the new president —H. J. Falkus, Esq., M.I.O.B.—the Conference will visit the Building Exhibition.

The Hon. Secretary, Mr. Alfred Emms, has to resign his office to take up the appointment of Superintendent of Technical Education for Tanganyika.

Mr. J. Lloyd, Esq., M.R.SAN.I., A.M.C.T., Senior Assistant, Dept. of Building, the Technical College, Gravesend, Kent, will take over the duties of Secretary until November.

*

REGULATIONS, made in the exercise of powers conferred by the Town and Country Planning Act, 1947, and affecting the National Coal Board have been laid before Parliament.

The Regulations give the Coal Board a right to the payment of compensation on a special basis if the development of certain of their land is hindered by planning restrictions.

*

THE MINISTRY OF SUPPLY announces that, although the lead allocation for May remains unchanged at 90 per cent. of the 1950 average monthly consumption and consumers may buy up to that amount, deliveries may be delayed during the month because of temporary shipping difficulties.

The Ministry expects to be able to deliver at least 80 per cent. of average monthly consumption in 1950. The balance of 10 per cent., if it cannot be delivered in May, will be delivered in June in addition to that month's quota.

*

THE WORD LIVERPOOL was unfortunately omitted from a note in "Interest" of April 27. The note referred to the retirement of the Head of the Building Department of Technology, now known as The City College of Building, Liverpool.

*

"THE FIRING OF COMMON BRICKS," by W. Noble, B.SC., A.R.I.C., and A. T. Green, O.B.E., F.R.I.C., F.INST.P., is the last paper in a series prepared on behalf of the National Brick Advisory Council. This paper—No. IV—is now published for the M.o.W. by H.M.S.O. (price 7s. 6d. net).

MOSAICS

Owing to pressure on space resulting from the opening of the Festival of Britain and the Royal Festival Hall, serial features, including Mosaics, will be temporarily withheld from certain issues of the A. & B.N. The regular publication of these serials will begin again as soon as space permits.

COUNCILLOR T. OSBORNE, chairman and managing director of The Midland Joinery Works Ltd., Burton-on-Trent, and president of the Timber Trades Benevolent Society (Midlands Section) has been returned unopposed as an independent member of the County Borough Council of Burton-on-Trent.

*

THREE BURSARIES, each of £50 for three years, given by Herbert Daniel Exhibitions Ltd., organisers of the recent Midlands Building Exhibition in Birmingham, have now been awarded by a committee of the Midland Federation of Building Trades Employers. The adjudicating committee were: Mr. Adrian J. Gee, M.I.O.B., director of Messrs. Gee, Walker & Slater Ltd.; Alderman S. G. Gibson, M.R.SAN.INST., Managing Director of Messrs. S. G. Gibson Ltd.; and Mr. K. A. Osbourn, F.C.I.S., of Birmingham, Director of the Federation.

The three bursaries have been awarded to Mr. W. E. Bradbury, apprentice to a builders' manager; Mr. David de Kretser, a trainee quantity surveyor; and Mr. J. H. Perrigo, an assistant surveyor.

The purpose of the three bursaries—worth £450 in all—is to enable the successful candidates to pursue their technical studies.

*

WORCESTER ON APRIL 27 was the setting for handing over to the City Council the 1,000th post-war house by Messrs. Wates Ltd., who have built 380 of the Worcester houses. These houses are of the non-traditional prefabricated type similar to that shown by them in the recent Daily Mail Ideal Home Exhibition at Olympia.

During the last twelve months Worcester Council has built 374 houses—compared with 369 in 1936—which was the highest number built in any year before the war.

*

CORRECTION

We regret that the name of Mr. McBean of C. W. Norris Ltd., was incorrectly spelt on page 526 of the *A. & B.N.* of May 4

Under the supervision of Mr. P. Boyt, Surveyor to the M.o.W., Houses of Parliament Maintenance Division, craftsmen are giving the Chamber of the House of Lords a thorough overhaul. The work started last November and is now approaching the finishing stages. Part of the floor of the Chamber has been renewed, together with new seating accommodation and repairs to the roof. The three large mural paintings over the thrones have been restored, and carvers are at work in various parts of the Chamber. The picture shows a newly inserted oak fret being carved.

DOOR AND WINDOW IN ONE

A door is a window as well, when the potential customers of a shopkeeper can look straight through it into the showrooms or the shop beyond. This is the unchanging invitation given by large doors of sparkling, transparent "ARMOURPLATE" glass that swing back at a touch to admit customers. The door to the shop is no longer the barrier that it used to be a hundred years ago.

Shops flanking the entrance to St. Bride's Avenue, Fleet Street. From a drawing by Thomas R. Shepherd, published in 1829

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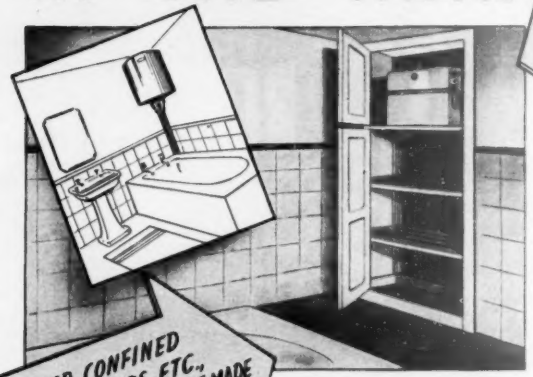

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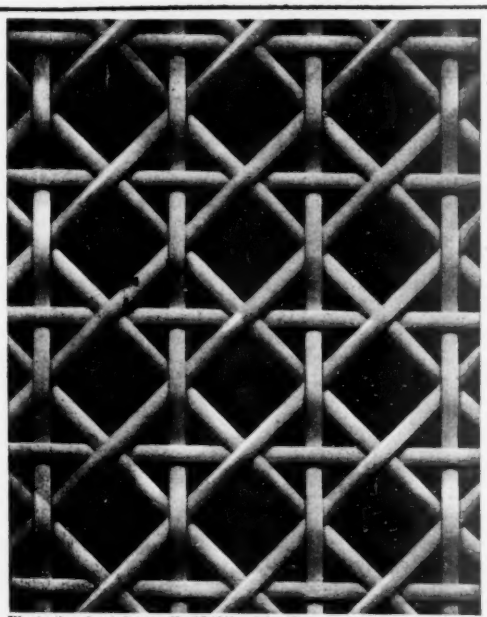

Illustration shows Pattern No. M.1010. Other Patterns and full particulars in Catalogue A 58F.

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GOOD, BAD OR INDIFFERENT?

No. 35—By A. FOREMAN

Brick Sizes

I NOTE with sadness that B.S.I. has once again issued a revision of the standard for brick sizes, B.S.657, without reaching an agreement to have only one national size in regard to the height, thus we shall have to continue to put up with heights of both 2⅝ in. and 2⅞ in. If my memory serves me correctly, near the end of the war the National Brick Advisory Council included in one of its reports a recommendation for the adoption of the 2⅝ in. size as a national standard height, which, with the bed joint, gives 3 in. high courses; this led me to believe that at long last there had been agreement about this vexed subject.

I suppose that to many the idea of one standard height does not seem of much importance and even possibly undesirable but I wonder if these people have ever troubled to think what great advantages might accrue if one size could be agreed. At the moment in the South 2⅝ in. is usual and in the North 2⅞ in. is usual and consequently it is not worth while for many manufacturers to attempt to agree to standard dimensions for other building components which they make and which have to marry up with bricks with the result that many economies in production are lost and real mass production is impossible. I can think of many firms who find it necessary to duplicate their production with two sets of moulds or jigs and, therefore, have to carry two stocks just because of this failure to agree about ¼ in. on the most used component in our industry. It seems to me to be just ridiculous.

Why does not the B.S.I. hold a special conference of all the major brickmakers, the architects, the more important component manufacturers and the builders to settle finally on one size. It might mean a very large meeting but surely it would be worth the trouble needed to organize it. Perhaps B.S.I. has such confidence that the proposed modular co-ordination scheme will come into operation quickly and therefore it is not worth while to try to reach agreement now on the brick size. If we had had a national brick size years ago it seems possible that we should never have heard of the present discussions of modules as we should have had one already operating as the influence of a completely standardized brick would have been enormous. I have heard, in the course of the years, all the arguments for and against each of the two sizes but hardly ever has the point been made regarding the effect on the other component makers. I do not think there is anything so fundamental in either size that it would not be offset by the overall advantages of having a single size, especially if the smaller one is adopted as this related so closely to the normal dimensions in which we think and work, namely multiples of one inch and very often multiples of 3 and 6 inches.

In the last year or two the difficulty of reaching agreement on one size has been aggravated by the fact that Scotland, where all sizes from about 2½ to 3½ in. have been customary, decided to standardize and of the two sizes the larger was selected. I think the Department of Health for Scotland should have been more heavy handed and forced the smaller size since almost the whole of the brick making plant had to be changed and it would have been just as easy to move over to the smaller size which fits with even 6 and 12 in. rises.

Brick dimensions influence so many other components such as blocks in concrete and clay, gas and ventilation flue blocks, flue linings, lintels, stone courses and even windows and doors. A standard height could have a very wide reaching effect on storey heights, lining materials, partitions and many more.

I think it is quite time the architects and builders solved this problem by deciding which one size suits them best, but in the endeavour to reach a decision they must weigh up very carefully the possible gains from the effect on the trades directly or indirectly associated with brickwork as this matter has not had nearly enough thought given to it in the past. If the architects and builders decided firmly which size they would have for the future I am sure the brickmakers would be willing to quickly fall in with their wishes.

No doubt it is difficult to assess the value of each size but not long ago B.R.S. produced a report on the cost of blocklaying (National Building Studies, Technical Paper No. 1, H.M.S.O., price 1s. 6d.) so I wonder if the station could not do some similar study of this problem and help to contribute very helpful information. Merely to time a few bricklayers putting down a given number of bricks might be most misleading as if they happen, as is probable, to be accustomed to handling one size for all their working lives they are unlikely to achieve good results with some other size until they have been working with them for a very long time. Another factor which has influenced the desire to keep the larger size seems to have been that the increase in price for the additional finished area was very small, in fact it seemed not to be proportional to the extra cost of material, fuel used and transport or the fact that two sizes had to be made.

PLASTERING

No. 4.—By H. Andrews, B.Sc., A.R.I.C.

Choice of Mix

BEFORE a decision is taken on the type of plaster best suited to any job a number of factors should be considered.

Influence of Background

One of the most important factors to be taken into account is the background to which the plaster is to be applied. Its influence on the final choice is variable but there are a few backgrounds to which only a very restricted number of plaster mixes can successfully be applied. Gypsum plasterboard is an example. Experience has shown that only gypsum or anhydrite plasters, and indeed only certain classes and types of these, will adhere satisfactorily to the paper surface. A further restriction is that lime must not be present in the plaster in contact with the board or it will adversely affect the adhesion. The choice here is restricted but it is also easy because the types that behave satisfactorily are known.

Another background which, to some extent, dictates the type of plaster to be applied is the non-rigid type of which wood-laths and light-weight metal lathing such as are commonly used for ceiling construction are examples. Strong mixes based on cement are found to be unsatisfactory as undercoats on this type of background because their drying shrinkage tends to cause distortion of the lathing with consequent cracking or waviness in the finished work. The weaker mixes containing cement and lime are suitable or, if a stronger undercoat is needed, mixes based on gypsum plasters should be used.

Certain backgrounds such as brickwork may satisfactorily be finished with any of the available mixes and considerations other than compatibility with the background will influence the type chosen.

Conditions

If, however, the conditions subsequent to plastering are likely to be damp, mixes based on cement alone or cement with some lime are to be preferred to those containing gypsum or anhydrite plasters.

Relation between Undercoats and Finishing Coats

An important principle in plastering of all kinds is that a strong finishing coat should never be applied to a weak undercoat. It is, on this account, useful to decide what type of finishing coat is required. This in turn will affect the proportions used in the undercoat and the type of undercoat may then be chosen in relation to the other factors involved, some of which have been touched on. One or two examples may be useful to illustrate this point.

If a strong finishing coat is needed on a background of metal lathing a strong undercoat must also be used and as it is to be applied to a non-rigid background it is preferable to base it on a gypsum plaster.

A finishing coat consisting essentially of lime may be needed on plasterboard. It is obviously incorrect to apply this directly to the board so it is necessary to interpose an undercoat of the correct type of gypsum or anhydrite plaster and sand.

Special Functions

Plaster may occasionally be required to perform special functions and two examples of this will be considered briefly.

The use of building board as a lining to walls and ceilings introduces a number of fire protection problems which did not arise when a plaster finish was used. Some types of board are characterized by the rapid rate at which flames spread along their

surfaces, a characteristic which introduces certain dangers in use. A very effective method of reducing this rate of spread of flame and thereby eliminating the danger is to apply a plaster finish.

The effect of plaster on the fire resistance of an element of a building structure may or may not be important. Its effect on a 9 inch brick wall is of no importance because the wall itself has a high resistance, but the effect on thinner walls may be appreciable and may enable them to be classified of higher fire resistance when plastered. In certain cases where only a low degree of fire resistance is called for, the plaster itself may provide it. Structural steel may sometimes be adequately protected by plaster applied to metal lathing or plaster-board.

It is therefore important, when preparing a specification for plastering, to consider not only the factors which are relevant to normal work but also any additional function which the plaster should perform and which may exert a decisive influence on the type chosen.

A selection of suitable plastering mixes is given in Table I for a number of backgrounds. It is not exhaustive and is intended only as a guide.

Background	Undercoats	Finishing coats
brickwork and clay tiles	1 or 4	A
	2, 3, 5, 6 or 7	A, B, C, D, E or F
concrete cast *in situ*	5	A, B, C, D, E or F
	none	C or E
building blocks	1 or 4	A
	2, 5, 6 or 7	A, B, C, D, E or F
wood laths	1 or 4	A
	5, 6 or 7	A, B, C, D, E or F
metal lathing	1 or 4	A
	5 or 7	A, B, C, D, E or F
gypsum plaster board or insulating fibreboard	5	A, B or C
	none	C or E
wood-wool slabs	2, 5, 6 or 7	A, B, C, D, E or F

TABLE I

Undercoats:

1. Lime plaster gauged with cement. 1:2:8-9 (cement:lime-sand).
2. Lime plaster gauged with cement. 1:1:5-6 (cement:lime-sand).
3. Cement and sand with little or no lime. 1:3 (cement:sand).
4. Lime plaster gauged with a gypsum plaster. 1:3:7-9 (gypsum plaster:lime:sand).
5. Retarded hemihydrate gypsum-plaster and sand. 1:1-3 (plaster:sand) the proportions varying with the type of background and to some extent with the brand of plaster.
6. Anhydrous gypsum-plaster or anhydrite plaster and sand. 1:1-2 (plaster:sand) the proportions varying with the type of background.
7. Anhydrous gypsum-plaster with sand and lime. 2:1:5-6 (plaster:lime:sand). Some types of Keene's and Parian may also be used in this way. The manufacturer of the brand should be consulted on this point.

Finishing Coats

A. Lime plaster gauged with a gypsum plaster. 1 part lime putty to $\frac{1}{4}$-$\frac{1}{2}$ part plaster depending on the hardness of the finish required.

B. Lime plaster gauged with a gypsum plaster. This is identical with A but the proportion of plaster may be increased to 1 part. The highest proportion gives a finish which is too strong to be applied over a weak undercoat.

C. Retarded hemihydrate gypsum-plaster.

D. Anhydrous gypsum-plaster, Keene's or Parian.

E. Anhydrite plaster.

F. Retarded hemihydrate gypsum-plaster or anhydrous gypsum-plaster to which a lime addition (say up to $\frac{1}{4}$ part) has been made. Certain types of Keene's and Parian may be used in this way. The manufacturer should be consulted on this point.

INTEREST *(continued)*

COURSES IN GENERAL FOREMANSHIP are now available in the following places: Birmingham, Blackpool, Bristol, Brixton, Burnley, Cambridge, Canterbury, Cardiff, Chelmsford, Coventry, Croydon, Darlington, East Ham, Exeter, Folkestone, Gloucester, Hammersmith, High Wycombe, Ipswich, Leeds, Leicester, Lewisham, Liverpool, Llanelly, Luton, Maidstone, Manchester, Norwich, Nottingham, Rugby, Sheffield, Southampton, Stoke-on-Trent, Stockport, Stroud, Swansea, Swindon, Tottenham, Walthamstow, Wandsworth, Watford, West Hartlepool, Wolverhampton, York.

About one-third of the courses available are being run in accordance with the syllabus which was drawn up by the Ad Hoc Committee for the Training of General Foremen and published with that Committee's Report in July, 1948. The other courses, for the most part, vary in type between modifications of that full course and preliminary courses of about ten lectures on subjects of interest to foremen, or discussion groups. There are also some courses which are in preparation for a Certificate issued by the Institute of Industrial Administration.

The ideal lecturer for General Foremanship subjects is not easily found. The Standing Committee for the training of General Foremen consider that he must have practical experience of the industry, and with this need in mind the Committee are anxious to sponsor some courses for likely lecturers as soon as possible. As an experiment in this field, it is hoped, with the co-operation of the Brixton School of Building, to hold there during the summer months this year an intensive week-end course for lecturers from the London area. Later it is hoped to arrange further courses for prospective lectures from all over the country.

*

THE TIMBER DEVELOPMENT ASSOCIATION has been holding regional and area weeks during the past year throughout the country to stimulate interest in timber as a raw material and to make more widely known the latest information on its uses, particularly in the constructional field. The latest of these weeks was held at Brighton. Following are extracts from a speech made by Mr. A. G. Beckett during the week:

Mr. Beckett said that while today there was almost a world shortage of many raw materials, this year it was hoped that there would be imported into this country a greater volume of softwood than in other post-war years. Timber Controls Canadian purchases should improve the position during the autumn and winter.

"But, this position will not be apparent until the second half of the year," said Mr. Beckett, "firstly because the shipping season for the Baltic is only just commencing and secondly because owing to the diversion of shipping cargoes from North America, certain delays have taken place. Another important factor is the long delay which arises when a vessel does arrive, before the goods are available for distribution, owing to the congestion at the larger ports and since Canadian goods are invariably shipped in large vessels, they cannot be accommodated in the smaller ports. In order to ensure that there is no delay before goods reach consumers, there must be satisfactory port facilities."

Mr. Beckett emphasized the fact that the shortage during the post-war years had not been due to any actual falling off in the world's supply, but substantially due to the shortage of foreign exchange.

Dealing with prices Mr. Beckett said, "Higher prices do not mean higher profits, but do mean carrying larger accounts. There is not an importer or a merchant in the country that does not deplore the position that has arisen, as not only does it present a financial problem which causes many a headache, especially to the smaller importer or merchant but the natural result could be to restrict the use of timber just as a campaign has been planned to get back the markets which for so many years have been lost to timber by the use of substitutes."

The Timber Development Association hopes, in June, to launch a national advertising campaign in favour of timber. This campaign will stress the importance of wood in the national economy.

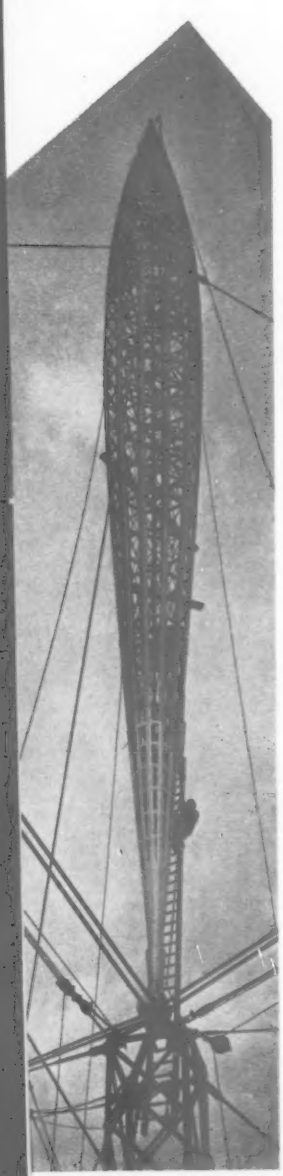
This article on the vertical feature at the South Bank site of the Festival of Britain is based on material, photographs and drawings supplied by British Insulated Callender's Construction Company Limited—the general contractors. Sub-contractors are given on page 556.

THE SKYLON

Architects: Powell & Moya, A.A.R.I.B.A.

Consulting Engineers to Festival:
Freeman Fox & Partners

Consulting Engineers for Structure:
Felix Samuelly



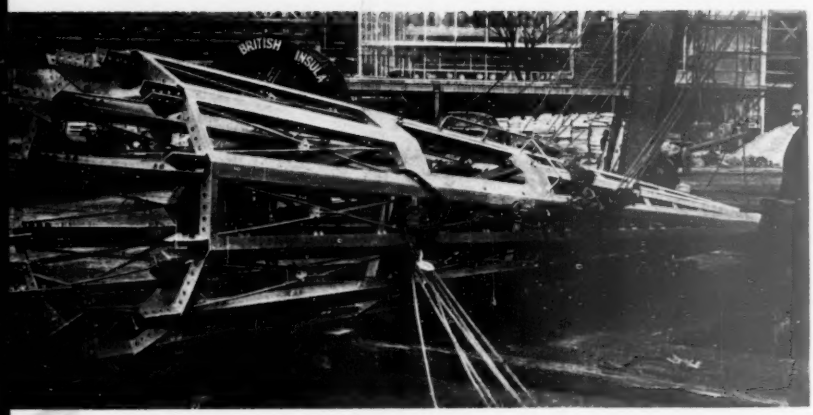
THE steelwork of the "Skylon" consists essentially of three types of structure; the foundation grillages, the supporting derricks, and the main Feature. The three structures were produced in that order and, with the exception of the foundation grillages, all the steelwork was unorthodox, consisting of welded units either delivered and erected complete or bolted together on site.

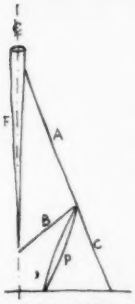
The three derricks supporting the Feature, each consist of a parallel sided centre section, 44 ft. long with two tapered end sections, 12 ft. long, butt welded at either end of the centre section. The derricks are triangular in section and each main leg consists of a 6 in. by 6 in. by $\frac{7}{16}$ in. angle with a 4 in. by 4 in. by $\frac{3}{8}$ in. angle, nesting into the root and continuously chamfered along the heel to give the necessary clearance. The three legs are spaced and reinforced by $\frac{1}{2}$ in. mild steel plates welded in tee section and bevel cut at the ends to 105°. On each face of the derrick, a $\frac{1}{4}$ in. thick mild steel continuous skin plate is fillet welded to the main legs.

The total weight of each of the centre units was 3.7 tons, and the first problems of fabrication were those of handling and distortion.

Before assembly of the derricks, the ends of the main angles were chamfered back in preparation for butt welding. Some difficulty was experienced in lining the sections, owing to their awkward size, weight and section, but this was finally achieved by fixing two profiles, one at each main joint, and lining in from datum lines in two planes.

When finally positioned, the assemblies were welded in a jig, each was then a complete unit 70 ft. long, approximately 2 ft. 4 in. across the face and 6.2 tons in weight. No distortion trouble was experienced in these last operations.



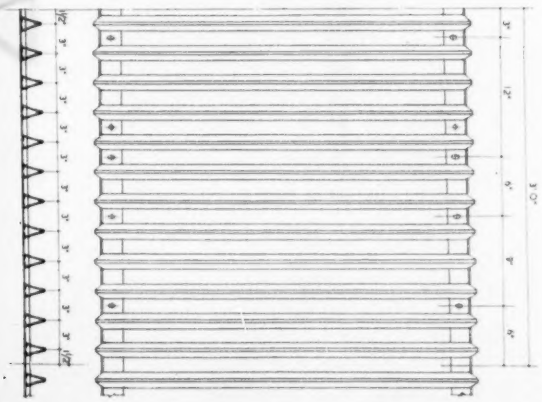


Member	Load—Tons				Strain—In.		
	Pre Stress	Wind	Dead	Total	Pre Stress	Dead	Total
A	55·3	55·3	—	110·6	2·320	—	2·32
B	100·5	5·25	19·70	125·45	1·170	·23	1·40
C	155·8	60·55	19·70	236·05	1·830	·23	2·06
P	161·8	7·74	30·50	200·04	·358	·072	·426
F	159·0	18·10	30·00	199·10	·363	·069	·432

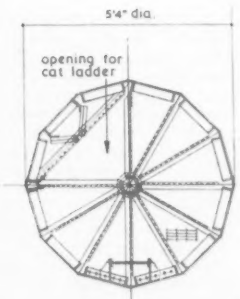
FROM MODEL EXPERIMENTS:—Average wind load at 75 m.p.h. 17 lb/sq. ft. of projected area. Adjusting for 80 m.p.h. and allowing a live load factor of 1·6

$$17 \times \frac{80^2}{75^2} \times 1{\cdot}6 = 30{\cdot}9 \text{ lb/sq. ft. of projected area.}$$

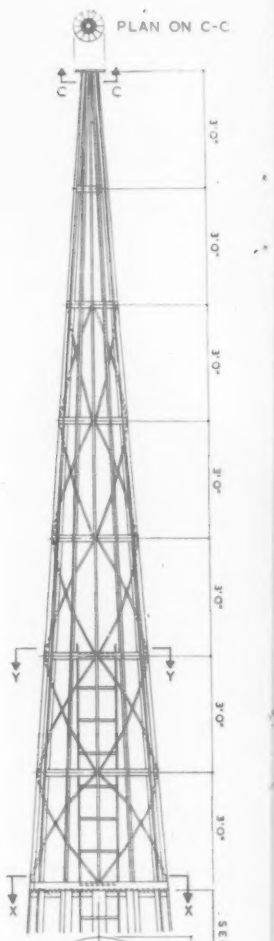
The main vertical feature of the "Skylon" consists of an elliptical beam measuring approximately 250 ft. in length, with a maximum diameter of 13 ft. Most of the body is built up of rectangular welded frames 12 ft. long, which, when bolted together, form a series of twelve sided rings, all with their own plan bracing. On some of these plan bracings, platforms have been sited, and a spiral staircase connects through all positions in the Feature. Each of the panels consists of two mild steel angles placed vertically in the structure, and three rolled steel sections spaced between them lying horizontally. They are braced by ⅜ in. diameter mild steel rounds, which are tensioned by special hook bolt attachments at the intersection points. Below left is a detail of the cladding louvres.



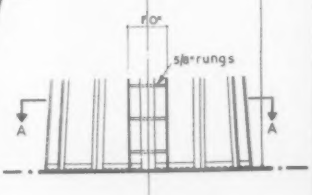
SECTION PART PLAN OF LOUVRE

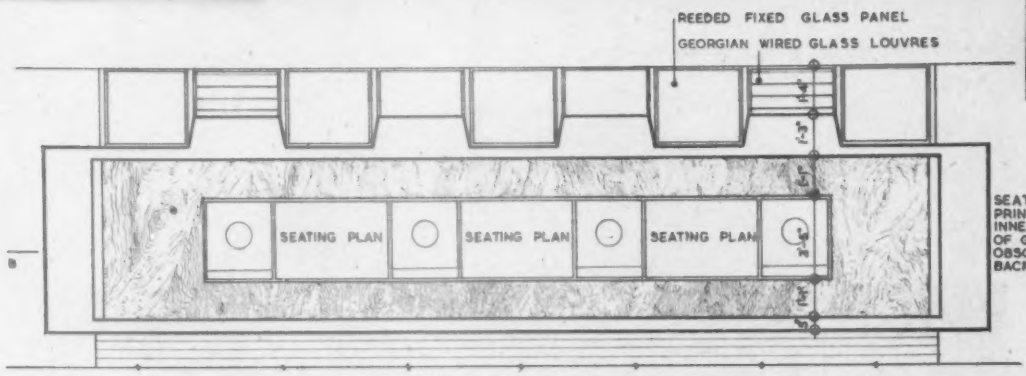


PLAN ON A-A

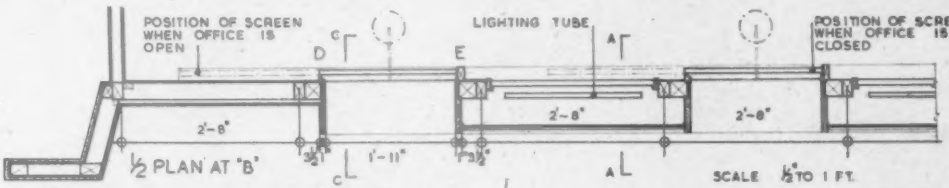


PART PLAN ON X-X & Y-Y

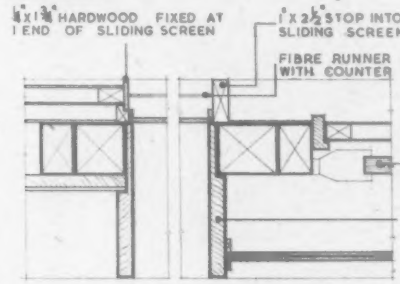



REEDED FIXED GLASS PANEL
GEORGIAN WIRED GLASS LOUVRES
SEATING PLAN
SEATING PLAN
SEATING PLAN
SEATING PLAN PRINTED ON INNER SHEET OF GLASS ON OBSCURED BACKGROUND

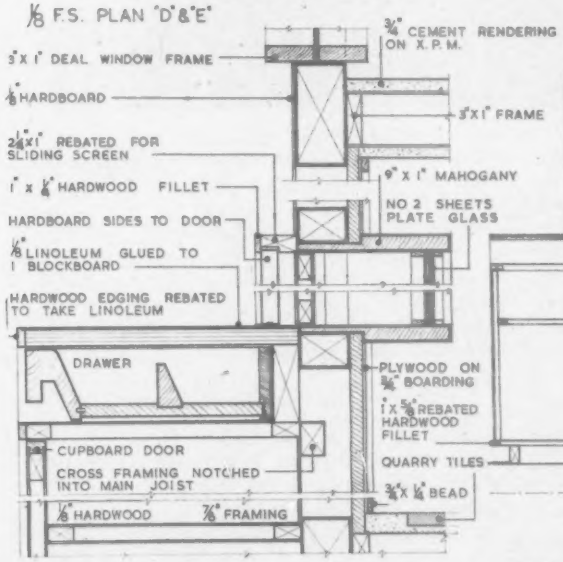
ELEVATION OF SCREEN FACING ON TO PUBLIC SPACE • SCALE ½" TO 1 FT



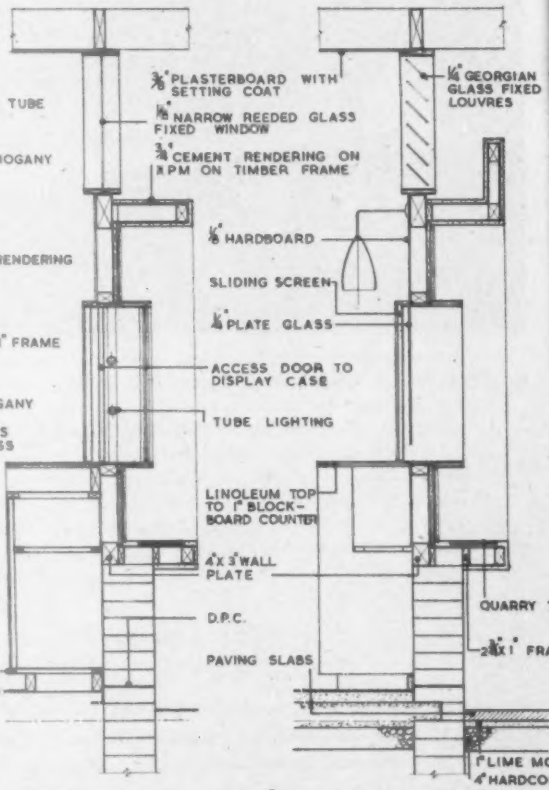
½ PLAN AT "B" SCALE ½" TO 1 FT.


¼"X1¾" HARDWOOD FIXED AT 1 END OF SLIDING SCREEN
1"X2½" STOP INTO WHICH SLIDING SCREEN LOCKS
FIBRE RUNNER FLUSH WITH COUNTER
LIGHTING TUBE
9"X 1" MAHOGANY

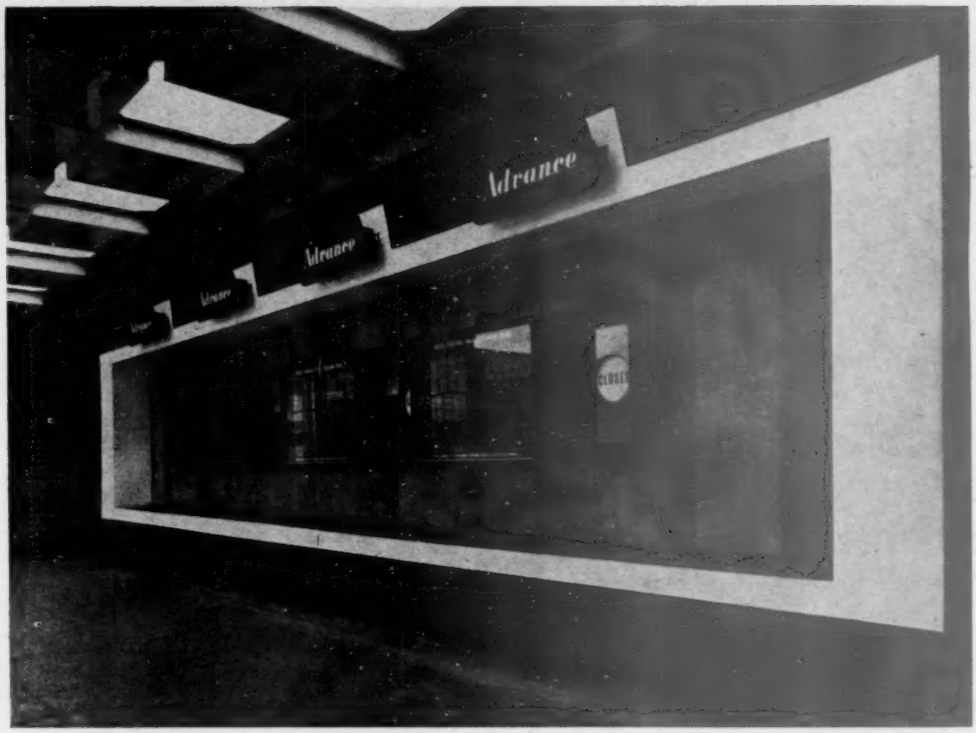
⅛ F.S. PLAN "D" & "E"



⅛ F.S. SECTION "A-A"



SECTION "A-A" SCALE ½" TO 1FT. SECTION "C-C"



BOOKING OFFICE, ROYAL FESTIVAL HALL, LONDON

ARCHITECT: SERGEI KADLEIGH

The Saloon Bar, "Ye Olde Swiss Cottage"

craftsman-laid with craftsman-made

SEMASTIC

DECORATIVE TILES

A PRODUCT OF A DUNLOP COMPANY

In the days when the stage-coach was the popular mode of transport and highwaymen were the terror of the roads, "Ye Olde Swiss Cottage" in N.W. London was already a popular halting-place for travellers. Semastic Decorative Tiles had not been thought of then, yet today they blend with their background as if they had always been part of it; lending a breath of modernity and freshness, yet always in keeping with their surroundings. They would have withstood the tramp of booted and spurred gallants, just as today they withstand the tread of even the most heavy-footed modern. The ease of installation and maintenance of these Tiles would have astounded the craftsmen who built the inn: their beauty, their comfort, their range of colours and designs would have delighted them. These are the qualities which make Semastic Decorative Tiles a first choice for hotel and public house floor coverings

INSTALLATION SERVICE

Countrywide installation is provided by the following floor laying specialists who represent the highest standard of experience and workmanship available in the country.

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• PILKINGTON'S ASPHALTE CO. LTD. • THE PENMAENMAWR & TRINIDAD LAKE ASPHALT CO. LTD.
• THE LIMMER & TRINIDAD LAKE ASPHALT CO. LTD. • SEMTEX LTD. • THE WESTERN TRINIDAD LAKE ASPHALT CO. LTD.

198/54

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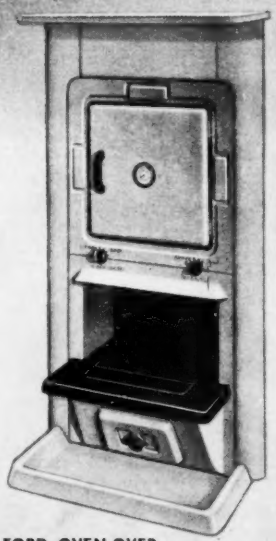
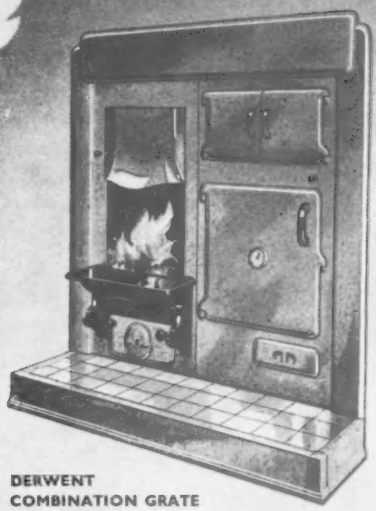
APPROVED BY THE MINISTRY OF FUEL AND POWER. EACH MODEL CONFORMS TO THE APPROPRIATE BRITISH STANDARD.



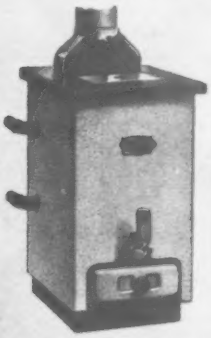
MILFORD OVEN-OVER-FIRE COMBINATION GRATE

Similar to the "Derwent" but without hot closet. Boiling space for five saucepans. Flue cleaning without removing ovens.



DERWENT COMBINATION GRATE

Efficient and economical fire provides heat for a large oven, fast-boiling hotplate with extension hob; hot closet. Ample domestic hot water and controlled room warmth. Overnight burning.



BOILERS B33 AND B22

Waterway encircles fire and gives high output per square foot of heating surface. Bright, clean finish, minimum cleaning. B33 has steel water jacket, B22 cast-iron.

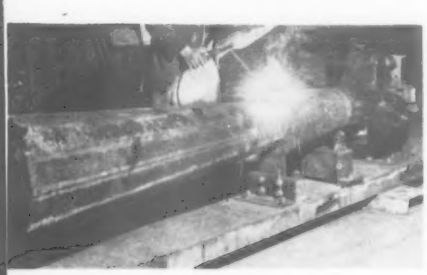
WRITE FOR LEAFLET

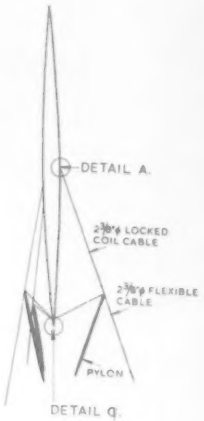
GLOW-WORM

GLOW-WORM BOILERS LTD. · DERWENT FOUNDRY · MILFORD · NR. DERBY

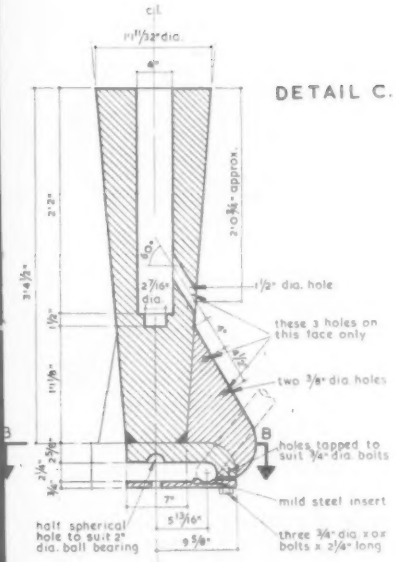
London Showrooms: 22-24, Buckingham Palace Road, London S.W.1

At the base of the Central Feature, the supporting cables are anchored in a special spider unit (see picture below). This was assembled to the bottom cone, which consisted of twelve 1 in. thick plates welded into a truncated cone. The axial loading at this point is estimated to be approximately 200 tons, and great care had to be taken to ensure complete soundness of the junction weld and exact alignment between the two sections. The joint was subjected to a shear load of 7½ tons to ensure reliability.

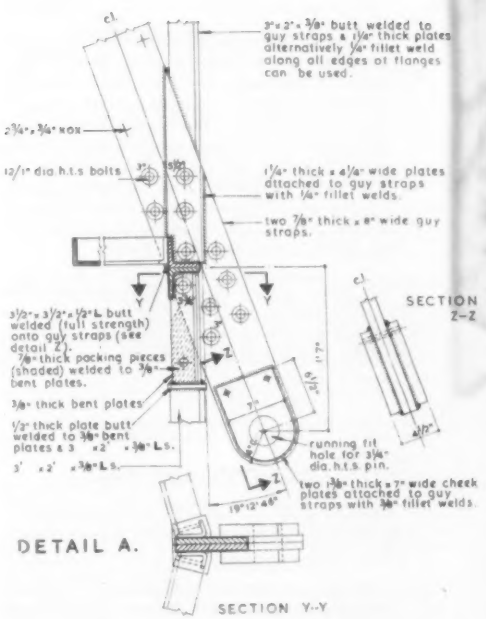




DETAIL Q.



One of the most difficult sections to fabricate was that adjacent to the guy point (see photo above right and detail, right). Each of the three main guys were attached to the structure by means of two plates measuring 8 in. by ¾ in. by 8 ft. 9 in. long, bolted face to face. This enabled the internal bracings taking the load from these plates to be fabricated and welded to the main ring of panels and then broken into three sections, each spanning 120°. Each of the three sections at the guy point weighed 1.14 tons, and measured approximately 13 ft. by 14 ft. by 6 ft. overall.


cl.
3" x 2" x 3/8" butt welded to guy straps & 1 1/4" thick plates alternatively 1/4" fillet weld along all edges of flanges can be used.
2 3/4" x 3/4" x ox
12/1" dia. h.t.s. bolts
1 1/4" thick x 4 1/4" wide plates attached to guy straps with 1/4" fillet welds.
two 7/8" thick x 8" wide guy straps.
3 1/2" x 3 1/2" x 1/2" L butt welded (full strength) onto guy straps (see detail Z).
7/8" thick packing pieces (shaded) welded to 3/8" bent plates.
3/8" thick bent plates
1/2" thick plate butt welded to 3/8" bent plates & 3" x 2" x 3/8" L s.
3' x 2" x 3/8" L s.
running fit hole for 3 1/4" dia. h.t.s. pin.
two 3/8" thick x 7" wide cheek plates attached to guy straps with 3/8" fillet welds.
DETAIL A.
SECTION Y-Y
SECTION Z-Z

The relation to the main structure of the two details illustrated on this page are shown in the diagram (top centre). Details of the foundations and the method used for tensioning the cables are given on the next page.

The photograph above shows the base of one of the three cable-supporting pylons. Each base is hinged at one end and rests at the other end on an hydraulic jack. By lifting the jack the pylon forces upwards on the cables ensuring complete tensioning. The jacks and bases are still visible in their pits.

Details right show features of the foundation layout.

The foundations and base jacking system which supports and tensions the three pylons are illustrated on this page. Erection of the pylons was carried out by lifting and temporarily staying them into position at an angle between 70° and 75° from the horizontal—their bases located 120° apart at a distance of approximately 16 ft. from the centre point. To facilitate this, and for final tensioning, a pin joint engages with the jacking system which is securely anchored into the ground. At the top of the pylons, sheave blocks and clamps are provided to guide and secure the steel supporting ropes and wind guys.

For building up and temporarily supporting the main beacon structure a false steelwork assembly (4 ft. square by 46 ft. high) was installed. This has now been struck and the feature, 250 ft. high, hangs suspended 40 ft. above the ground.

SUB-CONTRACTORS.

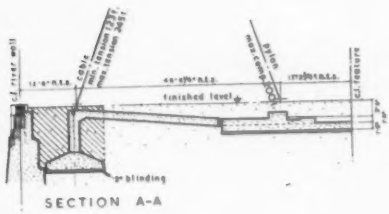
Fabrication of the major part of the feature was carried out by Painter Brothers Ltd., of Hereford—an associate company of B.I.C.C.C.

The special "spider" unit through which the supporting cables pass was fabricated by E. G. Porter and Sons Ltd., of Dartford, Kent.

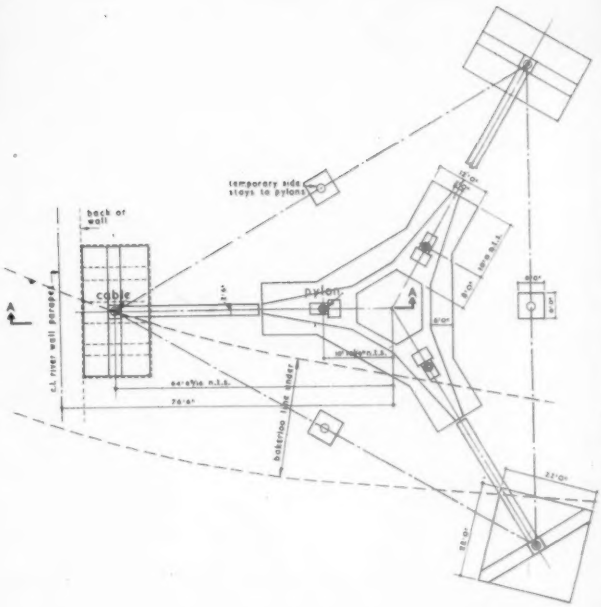
The louvred aluminium sheeting for the cladding was provided by Fredk. Braby, of Bristol.

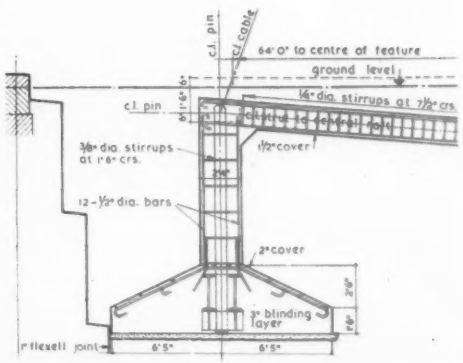
The foundations were designed by Freeman Fox and Partners.

FOUNDATION DETAILS



SECTION A-A





SECTION THROUGH RIVER WALL ANCHORAGE

CONTRACT • NEWS •

*Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate : (a) type of work, (b) address for application. Where no town is stated in the address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked * are given in the advertisement section.*

OPEN

BUILDING

AIREBOROUGH U.C. (a) 4 brick garages. (b) Council's Engineer, Micklefield House, Rawdon, Nr. Leeds. (c) 1 Gn. (e) May 28.

* * *

BARNSLEY B.C. (a) 6 houses, 6 shops and 6 flats in 3 blocks. (b) Borough Engineer, Town Hall. (c) 2 Gns. (e) May 28.

* * *

BERKSHIRE C.C. (a) Staff cottage at Mortimer House Home for the Blind. (b) County Architect, Wilton House, Parkside Road, Reading. (c) 2 Gns. (e) May 24.

* * *

BOURNEMOUTH B.C. (a) Alterations and additions to Information Bureau. (b) Borough Architect, Room 101, Town Hall. (c) 2 Gns. (e) May 23.

* * *

COALVILLE U.C. (a) 74 houses and 6 bungalows. (b) Engineer and Surveyor, Municipal Buildings. (c) 2 Gns. (e) May 23.

* * *

CUMBERLAND C.C. (a) Grammar School, Workington. (b) Council's Clerk, The Courts, Carlisle. (d) May 22.

* * *

DERBY B.C. (a) 20 houses and 40 flats. (b) Borough Architect, The Council House, Corporation Street. (c) 2 Gns. (e) June 6.

* * *

DOCKING R.C. (a) Public lavatories at the Beach, Brancaster. (b) Senior Sanitary Inspector, Council Offices. (e) May 22.

* * *

ESSEX C.C. (a) New duty room and alterations at the Beachcroft Training Home. (b) County Architect, County Hall, Chelmsford. (d) May 15. Approx. cost £2,500.

* * *

HERTFORD B.C. (a) Extension of present bus station and waiting rooms to provide public slipper baths. (b) Borough Engineer, The Castle. (c) 2 Gns. (e) May 21.

* * *

HUDDERSFIELD B.C. (a) Attested cattle market. (b) Borough Engineer, High Street Buildings. (c) 2 Gns. (e) May 21.

* * *

HUNTINGDON R.C. (a) 4 houses and 4 bungalows. (b) Messrs. Lea, Milner, Doe & Wardley, 4 Market Hill, Huntingdon. (c) 2 Gns. (e) May 24.

* * *

KNIGHTON U.C. (a) 6 houses and site preparation works. (b) Council's Clerk, Town Hall. (c) 4 Gns. (e) May 23.

* * *

LEEDS CORPORATION. (a) (Contract No. 434) 60 flats. (No. 435) 14 houses. (No. 436) 24 flats. (No. 437) 10 houses. (No. 438) 22 houses and 2-storey flats. (No. 439) 22 houses. (No. 440) 8 houses. (No. 441) 26 houses and 2-storey flats. (No. 442) 20 houses and 2-storey flats. (No. 426) 10 houses. (b) City Architect, Priestley House, Quarry Hill. (c) 1 Gn. each contract. (e) May 21. Noon. Town Clerk, Civic Hall.

* * *

LITTLEBOROUGH U.C. (a) 38 houses with ancillary works. (b) Engineer and Surveyor, Council Offices. (c) 2 Gns. (e) May 23.

* * *

LONDON—ACTON B.C. (a) Workshop at Central Depot. (b) Borough Engineer, Town Hall, W.3. (e) June 4.

KONQUEST

THE CHIMNEY POT

which is designed to eliminate down draught while contributing to the appearance of buildings

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Agent for Scotland:
F. T. Land, 7 Millbrae Crescent, Glasgow, S.2

R. Wm. LOCKWOOD
BUILDERS & CONTRACTORS
JOINERY & DECORATORS, Etc.
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LONDON: 10 Nicholson St., S.E.1. Tel. Waterloo 4465
MANCHESTER, 1: 12 Charles St. Tel. Ardwick 1391
EDINBURGH, 2: 2 North West Circus Place. Tel. Edin. 27998.
BIRMINGHAM, 18: 63 Hockley Hill. Tel. Northern 1260

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PREFABRICATION
STEEL STAIRCASES
BALUSTRADES & HANDRAILS

LONDON—WALTHAMSTOW B.C. (a) 22 houses. (b) Borough Architect, Town Hall, E.17. (c) 2 Gns. (e) May 31.

* * *

LONDON—WEST HAM B.C. (a) 10 houses. (b) Borough Architect, 70 West Ham Lane, E.15. (c) 2 Gns. (d) May 18.

* * *

MALDEN AND COOMBE B.C. (a) 6 houses. (b) Borough Engineer, Municipal Offices, New Malden. (d) May 19.

* * *

MONTGOMERYSHIRE E.C. (a) Head Teacher's house at Meifod. (b) Director of Education, County Offices, Newtown. (c) 2 Gns. (e) May 21.

* * *

NEWCASTLE-UPON-TYNE C.C. (a) Sub-branch library, Blakelaw Estate. (b) City Architect, 18 Cloth Market. (e) May 18.

* * *

NEW FOREST R.C. (a) 18 houses, Hythe. (b) Engineer and Surveyor, Council Offices, Lyndhurst. (c) 2 Gns. (e) May 24.

* * *

N. IRELAND—BELFAST C.C. (a) Gymnasium block at Graymount Intermediate School. (b) Education Architect's Dept., Academy Street, Belfast. (c) £2. (e) May 24.

* * *

N. IRELAND—LARNE B.C. (a) 16 houses for the Waterloo Housing Scheme No. 4. (b) Town Clerk, Town Hall. (c) 3 Gns. (e) May 24.

* * *

OSWESTRY B.C. (a) Conversion of Harlech Castle Hotel into 9 flats. (b) Borough Surveyor, Guildhall. (c) £1. (e) May 26.

* * *

PETERLEE DEVELOPMENT CORPORATION. (a) 8 shops with flats above. (b) General Manager, Shotton Hall, Castle Eden, Co. Durham. (c) 2 Gns. (e) May 28.

* * *

ROTHERHAM R.C. (a) 16 houses, 2 bungalows and 2 semi-bungalows. (b) Messrs. Taylor, Knight & Co., Brooksmoor House, Grove Road, Moorgate, Rotherham. (c) 2 Gns. (e) May 21.

* * *

ROTHERHAM R.C. (a) 16 houses, Bawtry Road site. (b) Messrs. Taylor, Knight & Co., Brooksmoor House, Grove Road, Moorgate, Rotherham. (c) 2 Gns. (e) May 21.

* * *

SCOTLAND—GLASGOW. (a) 36 flats. (b) Director of Housing, 2nd Floor, 20 Trongate, Glasgow. (c) 2 Gns. (e) May 18.

* * *

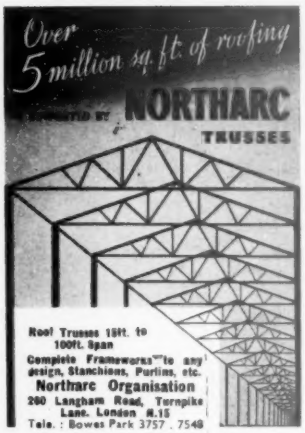
SCOTLAND—MIDLOTHIAN C.C. (a) Houses at Polbeath. (b) County Architect, 32 Palmerston Place, Edinburgh, 12. All or separate trades.

* * *

SEATON VALLEY U.C. (a) 16 houses and 6 houses at Village Road Estate, Cramlington. 4 houses at Seghill Station Estate. Provision and laying of 1,700 sq. yds. of concrete flags on Village Road Estate. Construction of streets and sewers at Blythe Street Estate for 120 houses. (b) Council's Surveyor, Council Offices, Seaton Delaval. (e) May 22.

* * *

SIDMOUTH WAR MEMORIAL EVENTIDE HOMES LTD. (a) Alterations and additions to Arcot House, to form a home for aged people. (b) A. E. Chandler, Secretary, Derby Cottage, Cliff Road. (c) £3.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Builders & Contractors
Tower Works, Tottenham, N.17
Telephone: TOTTENHAM 6811-5.

SOUTH WALES AND MONMOUTHSHIRE UNITED CLUBS BREWERY CO. LTD. (a) Excavating and levelling a virgin site and erection of steel frame and brick superstructure of new brewery. (b) Sydney Culverwell, 50 Hampton Park, Redland, Bristol, 6. (c) £2. (e) June 4.

* * *

SWANAGE U.C. (a) 25 houses in groups of 3, 4 or 5 pairs. (b) Council's Clerk, Town Hall. (d) May 18.

* * *

TENTERDEN B.C. (a) 8 pairs of houses and a block of 4 flats. (b) W. Lynn-Thompson, The Ingles, Hawkhurst, Kent. (c) 2 Gns. (e) May 21.

* * *

TYLDESLEY U.C. (a) 40 houses. (b) Engineer and Surveyor, Town Hall. (c) 2 Gns. (e) June 6.

* * *

WIMBORNE MINSTER U.C. (a) 16 old people's homes with Warden's block and communal room. (b) Council's Clerk, Civic Centre. (c) 2 Gns. (e) May 21.

* * *

WIRKSWORTH U.C. (a) 8 houses and 24 houses at Steeple Grange with sewers, paths, etc. (b) Council's Architect, 25 Chapel Street, Belper. (c) 2 Gns. (e) June 2.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

BUILDING

AYCLIFFE DEVELOPMENT CORPORATION. (1) 180 houses, 11 shops, flats, etc. (3) Direct Labour Department, Aycliffe, Co. Durham. Architects: M. C. Robson & Son, Station Chambers, Bishop Auckland.

* * *

BEDFORD CORPORATION. (1) 72 flats. (2) New Mile Road Estate. (3) William J. Bushby Ltd., 30 High Street, Kempston, Beds. (4) £69,926.

* * *

CAMBERWELL B.C. (1) 60 flats as first development stage. (2) Cleve Hall Estate. (3) Direct Labour. (4) £114,018. (1) 104 flats, 8 shops. (3) Wates Ltd., 1258 London Road, S.W.16. (4) £244,323.

* * *

CROYDON B.C. (1) Second stage of Fairchildes Secondary School. (3) Kirk & Kirk Ltd., 287 Upper Richmond Road, S.W.15. (1) First stage Cypress Infants' School. (3) T. Bingham & Co. Ltd., 4 Broadway, S.W.19. (1) Extension, St. Christopher's School. (3) Flowitt & Co. Ltd., 168 Merton High Street, S.W.19.

* * *

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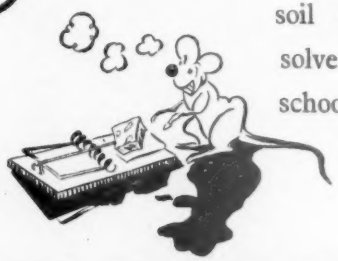

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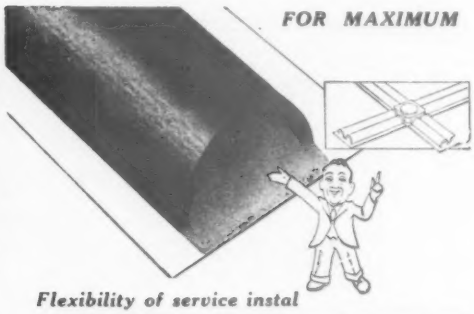

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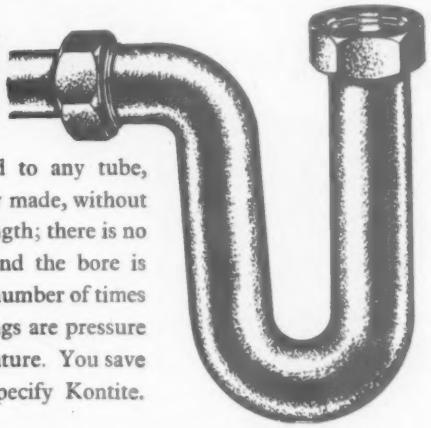

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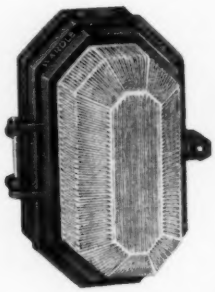

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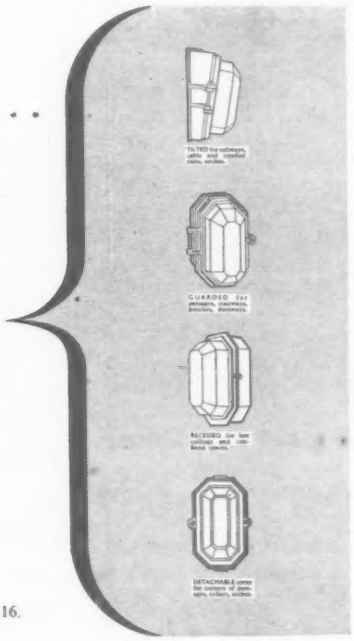

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APPOINTMENTS

LONDON COUNTY COUNCIL.

APPLICATIONS are invited for positions of ARCHITECTURAL ASSISTANT (salaries up to £580 a year) in the Housing and Valuation Department. Commencing salaries will be determined according to qualifications and experience. Engagement will be subject to the Local Government Superannuation Acts, and successful candidates will be eligible for consideration for appointment to the permanent staff on the occurrence of vacancies.

Successful candidates will be required to assist in the design, layout and preparation of working drawings for housing schemes (cottages and multi-storey flats) and will be employed in the Housing Architect's Division.

Forms of application may be obtained from the Director of Housing, The County Hall, Westminster Bridge, S.E.1 (stamped addressed envelope required and quote reference A.A.1). Canvassing disqualifies. (816). [0101

NORFOLK COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

APPLICATIONS are invited from Registered Architects for the appointment of a SENIOR ASSISTANT ARCHITECT, Grade VI (£595-£560 per annum).

Applications are also invited for the appointment of an ASSISTANT ARCHITECT, Grade V (£520-£570).

The above salaries do not include the increases recently recommended by the National Joint Council, which have not yet been considered by the County Council.

Applications, stating age, qualifications, present appointment and salary, full details of experience and giving the name of three persons to whom reference may be made, should be sent to the County Architect, 27 Thorpe Road, Norwich, by not later than Monday, 28th May, 1951.

The appointments are on the permanent staff and are subject to National Conditions of Service.

N. OSWALD BROWN, Clerk of the Council.

County Offices, Thorpe Road, Norwich. [5423

GOWER RURAL DISTRICT COUNCIL.

ENGINEER AND SURVEYOR'S DEPARTMENT.

APPLICATIONS are invited for the following appointments:—

(a) SENIOR ENGINEERING ASSISTANT Grade A.P.T. VI (£595-£660 per annum).

(b) SENIOR ARCHITECTURAL ASSISTANT, Grade A.P.T. VI (£595-£660 per annum).

Applicants for (a) should be either Corporate Members of the Institution of Civil Engineers or holders of the Testamur of the Institution of Municipal Engineers, and preferably holders of a University Degree in Engineering. Experience in Sewerage and Sewage Disposal is essential.

Applications for (b) should be Associates of the Royal Institute of British Architects, and have had experience in Municipal Housing Schemes, Shops, Adaptations, Estimating and Supervision of Works.

The appointments are temporary ones for minimum periods of three years, and will be terminable by one month's notice in writing on either side. The appointments will be subject to the provisions of the Local Government Superannuation Act, 1937.

Housing accommodation will be provided if necessary.

Applications, endorsed "Senior Engineering Assistant" or "Senior Architectural Assistant," stating age, experience and qualifications and accompanied by copies of not more than three recent testimonials, should be delivered to the undersigned not later than Wednesday, the 23rd May, 1951.

H. K. NEWCOMBE, Clerk of the Council.

Council Offices,

8 Uplands Crescent, Swansea. [5403

CITY AND COUNTY OF NEWCASTLE UPON TYNE.

CITY ARCHITECT'S DEPARTMENT.

APPLICATIONS are invited from suitably qualified persons for the undermentioned appointments in the Education Section of the Department:—

(a) One SENIOR ASSISTANT ARCHITECT, salary £635 per annum, rising to £710 per annum (A.P.T. Grade VII).

(b) One ASSISTANT ARCHITECT, salary £480 per annum, rising to £525 per annum (A.P.T. Grade IV).

Applicants for the post of Senior Assistant Architect, Grade VII, should be Associates of the Royal Institute of British Architects, having considerable aptitude in the design and construction of contemporary buildings. Previous experience of educational buildings is desirable, but not essential.

The work of the Section includes, in addition to the normal school programme, the design and erection of a large Grammar School and a new Central College of Technology. The successful applicants for both posts may be engaged wholly upon the new College of Technology.

The appointments will be subject to the National Conditions of Service as adopted by the City Council; to the provisions of the Local Government Superannuation Act, 1937, and to one month's notice on either side. The successful candidates will be required to pass a medical examination.

Applications, stating position applied for, age, particulars of training, qualifications, experience, present and past appointments, together with copies of two recent testimonials and the names and addresses of two persons to whom reference may be made, should be addressed to the City Architect, 18 Cloth Market, Newcastle upon Tyne 1, not later than 18th May, 1951.

JOHN ATKINSON, Town Clerk.

Town Hall, Newcastle upon Tyne 1.

24th April, 1951. [5406

BOROUGH OF CHATHAM.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

APPOINTMENT OF ADDITIONAL STAFF.

APPLICATIONS are invited for the following appointments in connection with redevelopment proposals and other capital works schemes:—

(1) CHIEF ASSISTANT ARCHITECT within Grade VII (£635-£710).

(2) SENIOR ASSISTANT ARCHITECT within Grades V and VI (£520-£610).

(3) ASSISTANT CIVIL ENGINEER within Grade V (£520-£570).

Housing accommodation will be made available if required.

Conditions of appointment and form of application may be obtained from Mr. H. D. Peake, M.Sc. (Eng.), Borough Engineer and Surveyor, Town Hall, Chatham, to whom completed application forms should be returned not later than 21st May, 1951. [5405

COUNTY BOROUGH OF EAST HAM.

BOROUGH ENGINEER'S DEPARTMENT.

APPLICATIONS are invited for the undermentioned appointments on the permanent staff (except where otherwise stated):—

SENIOR ARCHITECTURAL ASSISTANT (Grade A.P.T. VI). Salary £595 to £660 per annum.

ARCHITECTURAL ASSISTANT (Grade A.P.T. IV). Salary £480 to £525 per annum.

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Full particulars of the terms and conditions of appointment and form of application (which must be returned by Monday, the 21st May, 1951) may be obtained from the undersigned.

Canvassing in any form will disqualify.

H. A. EDWARDS, Town Clerk.

Town Hall, East Ham, E.6.

May, 1951. [5422

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THERE are vacancies in the Chief Architect's Division for ARCHITECTURAL ASSISTANTS and LEADING ARCHITECTURAL ASSISTANTS with recognised training and fair experience. Successful candidates will be employed in London and elsewhere on a wide variety of Public Buildings, including Atomic Energy and other Research Establishments, Telephone Exchanges and Housing.

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Although these are not established posts, some of them have long term possibilities and competitions are held periodically to fill established vacancies.

Apply in writing, stating age, nationality, full details of experience, and locality preferred, to Chief Architect, Ministry of Works, Abell House, John Islip Street, London, S.W.1, quoting reference WG10/BC. [5326

KENT COUNTY COUNCIL.

APPLICATIONS are invited for appointment in the Buildings Department of a BUILDING SURVEYOR at a salary according to qualifications and experience, within the range of A.P.T. Grades IV-V(a) (£530-£660).

Applicants should have had practical experience in the building trade and be thoroughly competent to supervise work and prepare specifications and detailed estimates in connection with the maintenance of buildings, and to prepare drawings for new projects of a minor nature. They should preferably be Licentiates of the Institute of Builders by examination or have passed the examination for Building Surveyors of the Royal Institute of British Architects or hold an equivalent qualification.

Applications, on forms obtainable from the County Architect, Springfield, Maidstone, should be submitted to him within fourteen days of the appearance of this advertisement.

W. L. PLATTS, Clerk of the County Council.

County Hall, Maidstone.

30th April, 1951. [5426

CITY OF NOTTINGHAM.

CITY ENGINEER'S DEPARTMENT.

SENIOR ARCHITECTURAL ASSISTANT, GRADE A.P.T. VII.

APPLICATIONS are invited for the above position from fully qualified and experienced men. School work will be an advantage.

Applications on forms to be obtained from the City Engineer, Guildhall, Nottingham, are to be made to him not later than Monday, 21st May, 1951.

T. J. OWEN, Town Clerk.

Guildhall, Nottingham. [5424

STEVENAGE DEVELOPMENT CORPORATION.

THE Stevenage Development Corporation invite applications for the following posts in the Department of Architecture and Planning (Chief Architect and Planner—Clifford Holliday, M.Arch., F.R.I.B.A., M.T.P.I.):

1. ASSISTANT ARCHITECTS Grade IV. Salary £580 x £30-£750. Applicants should be fully qualified architects with experience in housing and/or industrial buildings.
2. JUNIOR ARCHITECTS. Grade Vc. £530 x £25-£570. Candidates should either have completed a degree or diploma course at a recognised school of architecture or have passed the final examination of the R.I.B.A.
3. ARCHITECTURAL ASSISTANT, Grade VI. Salary £350 at age 21, £375 at age 22, £400 at age 23. Candidates must have reached the Intermediate standard of the R.I.B.A.
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Initial salaries for posts 1 and 2, will be fixed according to qualifications and experience.

Successful applicants will be required to contribute to a Local Government Superannuation Fund or an Assurance Scheme.

The Corporation anticipates that if so desired, it will be able in the near future to offer successful married candidates the tenancy of a Corporation house.

Canvassing directly or indirectly of members or staff of the Corporation will disqualify.

Forms of application may be obtained from the Chief Administrative Officer, Stevenage Development Corporation, Aston House, Nr. Stevenage, Herts, to whom completed forms should be returned not later than 28th May, 1951. [5433

BURGH OF COATBRIDGE.

TOWN PLANNING ARCHITECT.

APPLICATIONS are invited for the appointment of TOWN PLANNING ARCHITECT for the Burgh of Coatbridge.

Applicants, who should be qualified architects and also Members of the Town Planning Institute, must have executive and administrative experience not only in design, preparation of working drawings, specifications, and quantities for the erection of houses and offices, but more particularly experience in the preparation of Town Panning Schemes.

The successful applicant must be under 45 years of age and will be admitted to the Town Council's Superannuation Scheme subject to passing a medical examination before appointment.

The salary will be Grade VIII of the A.P.T. Scale of the J.I.C. Charter, namely £760 to £810 by annual increments of £25.

Applications, stating age, qualifications and experience, together with copies of three recent testimonials, must be lodged with the undersigned not later than fourteen days after the appearance of this advertisement.

ALEXANDER S. THOM, Town Clerk.
Municipal Buildings, Coatbridge.
27th April, 1951. [5420

COUNTY BOROUGH OF GREAT YARMOUTH.

APPOINTMENT OF CLERK OF WORKS.

APPLICATIONS are invited for the appointment of CLERK OF WORKS to act under the direction of the Borough Engineer in the supervision of the erection of six-storey flats.

Applicants should have a thorough knowledge of the building trade, the erection of multi-storeyed flats, of steel-frame building and pile foundations. Membership of the Incorporated Clerk of Works Association of Great Britain would be an advantage. The salary will be £12 per week. Housing accommodation will be provided if required.

Applications, stating age, qualifications and previous experience, together with the names of three persons to whom reference may be made, should be enclosed in an envelope, endorsed "Clerk of Works," and must be received by me not later than Friday, 25th May, 1951.

Candidates must disclose in writing whether they are related to any member or officer of the Council. Canvassing, either directly or indirectly will disqualify.

FARRA CONWAY, Town Clerk.
Town Hall, Great Yarmouth.
3rd May, 1951. [5428

HEREFORDSHIRE COUNTY COUNCIL.

COUNTY PLANNING DEPARTMENT.

APPLICATIONS are invited for the following posts in the County Planning Department:—

(a) AREA OFFICER for work on Development Control. A.P.T. Grade V(a) (£600-£660 per annum).

(b) PLANNING ASSISTANT for Development Plan Work. (A.P.T. Grade V) (£570-£620 per annum).

Candidates should be Corporate Members of the Town Planning Institute or possess a recognised qualification in Architecture, Surveying or Engineering.

Successful candidates will be expected to maintain cars in accordance with the Council's Scheme for the payment of travelling allowances.

The appointments are subject to the provisions of the Local Government Superannuation Act, 1937, the Council's Conditions of Service, and a medical examination.

Applications, suitably endorsed for appointments (a) or (b), stating age, past and present appointments, qualifications and names of two referees, should be sent to the undersigned not later than 26th May, 1951.

A. R. DUNCAN, County Planning Officer.
Chandos House,
St. Owen Street, Hereford. [5427

LONDON COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

BUILDING SURVEYORS.

APPLICATIONS are invited for positions of TECHNICAL ASSISTANT (salaries up to £580 plus 10 per cent. addition) to deal with the technical administration of statutes relating to safety precautions in buildings licensed for public entertainment. Candidates should have a knowledge of building construction. Positions superannuable and carry eligibility on merit for permanent appointment and promotion. Application forms to be returned 19th May, 1951, obtainable from Architect to the Council, County Hall, S.E.1, enclosing stamped addressed foolscap envelope and quoting AR/EK/TH. Canvassing disqualifies. (511). [5401

METROPOLITAN BOROUGH OF CAMBERWELL.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

APPLICATIONS are invited for the following permanent appointments:—

1. TWO ASSISTANT ARCHITECTS. Grades A.P.T. V/VI, at a commencing salary of £550 per annum rising to a maximum of £650 per annum inclusive of £30 London Weighting.

Applicants should have sound general experience in architectural work and be registered architects. Preference will be given to Associates of the Royal Institute of British Architects.

2. JUNIOR ASSISTANT ARCHITECT. Grades A.P.T. I/II, at a commencing salary of £420 per annum rising to a maximum of £495 per annum inclusive of £30 London Weighting.

Above salaries will be increased by £50 p.a. subject to the Council approving the revised National Scales.

Applicants should have passed the R.I.B.A. Intermediate Examination or its equivalent and be neat and expeditious draughtsmen.

The appointments are subject to the National Scheme of Conditions of Service, to the provisions of the Camberwell and Other Metropolitan Borough Councils' (Superannuation) Act, 1908, as amended, and to the passing of a medical examination by the Council's Medical Officer of Health.

Housing accommodation cannot be provided by the Council.

Applications from staff in the service of other Local Authorities will not be considered unless they have been in the service of their present employers for a period of not less than two years.

Applications, on forms to be obtained from the undersigned, must be returned not later than Monday, 28th May, 1951.

S. J. HARVEY, Town Clerk.
Town Hall, Camberwell, S.E.5. [5421

BOROUGH OF WIDNES.

BOROUGH ARCHITECT'S DEPARTMENT.

APPLICATIONS are invited for the appointment of an ARCHITECTURAL ASSISTANT as a salary in accordance with A.P.T. Grade IV of the National Scale of Salaries, commencing at the minimum of the grade.

Applicants must be Student R.I.B.A., and have worked in an architectural office for at least 2 years subsequent to having passed the Intermediate Examination.

The appointment will be subject to the National Scheme of Conditions of Service as adopted by the Council, and to the Local Government Superannuation, October 1937, and to the successful candidate passing a medical examination.

Applications stating full particulars of age, experience, and qualifications etc., together with the names and addresses of two referees, to be sent to the Borough Architect, Brendan House, Widnes Road, Widnes, not later than Friday, 8th June, 1951.

Canvassing directly or indirectly will disqualify.

FRANK HOWARTH, Town Clerk.
Town Hall, Widnes.
7th May, 1951. [5431

LONDON COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

APPLICATIONS are invited for positions of ARCHITECT, Grade III (£550-£700) and TECHNICAL ASSISTANT (up to £580) for architectural work on new housing, schools and other public buildings. The positions are superannuable and the above rates are subject to an addition of 10 per cent. on the first £600 and 7½ per cent. on any remainders. — Application forms from The Architect, The County Hall, S.E.1, enclosing stamped addressed foolscap envelope and quoting AR/EK/A. Canvassing disqualifies. (514). 10106

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REQUIRED by Reinforced Concrete Company, Sales Assistant to operate in South Wales and West of England (based on Bristol). Salary offered, £400-£500 per annum, according to qualifications.—Applicants must have sound knowledge of general reinforced concrete application to industry.—Write, giving full details, to Box B.869, at 191 Gresham House, E.C.2. [5419

DRAUGHTSMAN-Senior wanted for Architectural Department of Newcastle engineering firm. Knowledge of industrial building work essential.—Write, stating age and experience, to Box 1219, The Architect and Building News. [5408

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SWISS architect, age 26, with National Certificate, very good knowledge of civil engineering and architecture, design and construction, surveying, estimating, blasting, tunnelling, experience as Clerk of Works and in every kind of work on building sites, wishes employment in England to obtain knowledge of English language and methods. — Please communicate with Walter Schwald, 11a Holtzstrasse, St. Gallen, Switzerland. [5430

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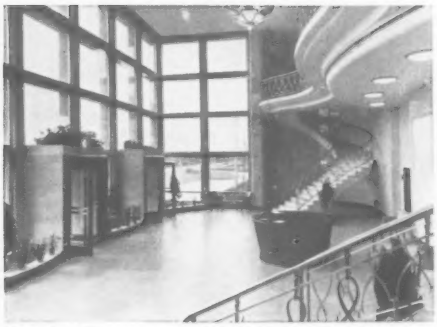

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